Russell Greiner

Dept of Computing Science, 359 Athabasca
University of Alberta Edmonton, Alberta T6G 2E8

Phone: (780) 492-5461 Email: rgreiner@ualberta.ca
FAX: (780) 492-1071 Homepage: http://www.cs.ualberta.ca/~greiner/

BACKGROUND

Education

Ph.D.	Computer Science, Stanford University (1985)
M.Sc.	Computer Science, Stanford University (1979)
B.Sc.	Mathematics and Computer Science, California Institute of Technology (1976)

Employment

Nov 97 – present	Professor, Dept. of Computing Science, U. Alberta (Edmonton)
July 08 – June 11	Assoc Chair, Graduate; Dept. of Computing Science, U. Alberta (Edmonton)
Sept 02 – Sept 03	
July 06 – Dec 07	Scientific Director, Alberta Ingenuity Centre for Machine Learning, Edmonton
May 99 – Dec 03	Consultant, BioTools / ChenomX, Edmonton, AB
Jan 92 – Oct 97	(Senior) Member of Technical Staff, Siemens Corporate Research, Princeton NJ
Oct 85 – Dec 91	Research Scientist / Visiting Professor, Dept. of Computer Science, U. Toronto
Oct 77 – Sept 85	Research Assistant, Computer Science, Stanford U.
Mar 81 – Oct 81	Consultant, The Rand Corp, Santa Monica, CA

PRIZES and AWARDS

Best Paper	Canadian Conference on Artificial Intelligence, 2010. "The IMAP Hybrid Method for Learning Gaussian Bayes Nets"
Fellow, AAAI	(Association for the Advancement of Artificial Intelligence), 2007
Faculty Research Award	UofA CS (2007)
Killam Fellowship	(Univ of Alberta), 2006
ASTech Award, 2006	Outstanding Leadership in Technology (as Member, AICML)
Distinguished Paper	Nineteenth International Joint Conference on Artificial Intelligence (IJCAI'05) "Learning Coordinate Classifiers"
McCalla Professorship	University of Alberta; 2005-06
Best Student Paper	Ninth International Conference on User Modeling (UM'2003) "Learning a Model of a Web User's Interests"
Best Paper (RunnerUp)	Fourteenth Canadian Conference on Artificial Intelligence (CSCSI'01) "Learning Bayesian Belief Network Classifiers: Algorithms and System"
Best Paper	Ninth Canadian Conference on Artificial Intelligence (CSCSI'92) "Probabilistic Hill-Climbing: Theory and Applications"

PUBLICATIONS

Refereed Journal Articles

[**J1**] **M. Bastani**, L. Vos, **N. Asgarian**, J. Deschenes, K. Graham, J. Mackey, R. Greiner. A Machine Learned Classifier that uses Gene Expression Data to Accurately Predict Estrogen Receptor Status. *PLoS One*, November 2013.

[**J2**] **R. Eisner**, R. Greiner, V. Tso, H. Wang, R. Fedorak. A machine-learned predictor of colonic polyps based on urinary metabolomics. *BioMed Research International*, 2013(303982), November 2013.

[**J3**] B. Anton, *et al.*. The COMBREX Project: Design, Methodology, and Initial Results. *PLOS Biology*, August 2013.

[**J4**] **S. Ravanbakhsh**, M. Gajewski, R. Greiner, J. Tuszynski. Determination of the optimal tubulin isotype target as a method for the development of individualized cancer chemotherapy. *Theoretical Biology and Medical Modelling*, April 2013.

[**J5**] C. Stretch, **S. Khan**, **N. Asgarian**, **R. Eisner**, **S. Vaisipour**, S. Damaraju, O. Bathe, H. Steed, R. Greiner, V. Baracos. Effects of sample size on differential gene expression, rank order and prediction accuracy of a gene signature. *PLoS One*, April 2013.

[**J6**] **M Hajiloo**, Y Sapkota, J Mackey, P Robson, R Greiner and S Damaraju, ETHNOPRED – An Ensemble of Decision Trees for Ethnicity Classification and Population Stratification Correction in Genome Wide Association Studies. *BMC Bioinformatics*, 2013.

[**J7**] **G Sidhu**, R Greiner, **N Asgarian**, and M Brown, Kernel Principal Component Analysis for dimensionality reduction in fMRI-based diagnosis of ADHD. *Frontiers in Systems Neuroscience*, 2012.

[**J8**] **M Hajiloo**, **B Damavandi**, M HooshSadat, F Sangi, J Mackey, C Cass, R Greiner and S Damaraju. Using Genome Wide Single Nucleotide Polymorphism Data to Learn a Model for Breast Cancer Prediction. *BMC Bioinformatics*, 2013.

[**J9**] D Wishart, T Jewison, A Guo, M Wilson, C Knox, Y Liu, Y Djoumbou, R Mandal, F Aziat, E Dong, S Bouatra, I Sinelnikov, D Arndt, J Xia, P Liu, F Yallou, T Bjorndahl, R Perez-Pineiro, **R Eisner**, **F Allen**, V Neveu, R Greiner, and A Scalbert. HMDB 3.0 – The Human Metabolome Database in 2013. *Nucleic Acid Research*, 2013.

[**J10**] M Brown, **G Sidhu**, R Greiner, **N Asgarian**, **M Bastani**, P Silverstone, A Greenshaw, and S Dursun. ADHD-200 Global Competition: Diagnosing ADHD using personal characteristic data is superior to resting state fMRI measurements. *Frontiers in Systems Neuroscience*, 2012.

[**J11**] P Musilek, A Zarnani, X Shi, X Ke, H He and R Greiner. Learning to Predict Ice Accretion on Electric Power Lines *Engineering Applications of Artificial Intelligence*, July 2012.

[**J12**] **S Wang**, S Wang, L Cheng, R Greiner, and D Schuurmans. Exploiting syntactic, semantic and lexical regularities in language modeling via directed markov random fields. *Computational Intelligence*, 2012.

[**J13**] C Stretch, **T Eastman**, R Mandal, **R Eisner**, D Wishart, M Mourtzakis, C Prado, S Damaraju, R Ball, R Greiner, and V Baracos. Prediction of skeletal muscle and fat mass in patients with advanced cancer using a metabolomic approach. *J Nutrition*, 2012.

[**J14**] A Zarnani, P Musilek, X Shi, X Ke, H He, and R Greiner. Learning to predict ice accretion on electric power lines. *Eng. Appl. AI*, 2011.

[**J15**] B Saha, N Ray, R Greiner, A Murtha, and H Zhang. Quick detection of brain tumors and edemas: A bounding box method using symmetry. *Computerized Medical Imaging and Graphics*, 2011.

[**J16**] **D Lizotte**, R Greiner, and D Schuurmans. An experimental methodology for response surface optimization methods. *J Global Optimization*, 2011.

[**J17**] D Moulavi, **M Hajiloo**, J Sander, P Halloran, and R Greiner. Combining gene expression and interaction network data to improve kidney lesion score prediction. *International J Bioinformatics Research and Applications*, 2011.

[**J18**] B Sehrawat, M Sridharan, S Ghosh, P Robson, C Cass, J Mackey, R Greiner, and S Damaraju. Potential novel candidate polymorphisms identified in genome-wide association study for breast cancer susceptibility. *Human Genetics*, 2011.

[**J19**] N Psychogios, D Hau, J Peng, A Guo, R Mandal, S Bouatra, I Sinelnikov, R Krishnamurthy, **R Eisner**, B Gautam, N Young, J Xia, C Knox, E Dong, P Huang, Z Hollander, T Pedersen, S Smith, F Bamforth, R Greiner, B McManus, J Newman, T Goodfriend, and D Wishart. The human serum metabolome. *PLoS One*, 6(2), 2011.

[**J20**] **R. Eisner**, J. Xia, D. Hau, **T. Eastman**, C. Stretch, S. Damaraju, R. Greiner, D. Wishart, V. Baracos. "Learning to predict cancer-associated skeletal muscle wasting from 1H-NMR profiles of urinary metabolites". Metabolomics, June 2010.

[**J21**] **N. Asgarian**, X. Hu, Z. Aktary, K. Chapman, L. Lam, R. Chibbar, J. Mackey, R. Greiner, M. Pasdar. "Learning to Predict Relapse In Invasive Ductal Carcinomas based on the Subcellular Localization of Junctional Proteins". Breast Cancer Research and Treatment, 121(2), pp 527, May 2010.

[**J22**] **B. Bostan**, R. Greiner, D. Szafron, P. Lu. "Predicting Homologous Signaling Pathways Using Machine Learning". Bioinformatics, September 2009.

[**J23**] A Kerhet, C Small, H Quon, T Riauka, L Schrader, R Greiner, D Yee, A McEwan and W Roa. "Application of Machine Learning Methodology for PET-Based Definition of Lung Cancer". Current Oncology, 17(1), 2010

[**J24**] **X. Su**, T. Khoshgoftaar, X. Zhu, R. Greiner, "Making an accurate classifier ensemble by voting on classifications from imputed learning sets", International Journal of Information and Decision Sciences (IJIDS), 1(3), pp. 301-322, 2009 (DOI: 10.1504/IJIDS.2009.027657)

[**J25**] Oliver Schulte, Wei Luo, and Russell Greiner, "Mind Change Optimal Learning of Bayes Net Structure from Dependency and Independency Data", Information and Computation, accepted March 2009.

[**J26**] S. Damaraju, B. Sehrawat, D. Carandang, R. Penugonde, R. Greiner, M. Parliament. "Candidate and Whole-Genome SNP Association Studies of Late Radiation Toxicity in Prostate Cancer Patients". Radiation Research, 170, pp 671-672, September 2008.

[**J27**] A. Fyshe, **Y. Liu**, D. Szafron, R. Greiner and P. Lu, "Improving Subcellular Localization Prediction using Text Classification and the Gene Ontology", Bioinformatics, 2008.

[**J28**] DS Wishart, M J. Lewis, J A. Morrissey, M D. Flegel, K Jeroncic, Y Xiong, D Cheng, R Eisner, B Gautam, D Tzur, S Sawhney, F Bamforth, R Greiner and L Li, "The Human Cerebrospinal Fluid Metabolome", Journal of Chromatography B – Analytical Technologies in the Biomedical and Life Sciences (June 2008).

[**J29**] **C-H. Lee**, O. Zaiane, H-H. Park, J. Huang, and R. Greiner, " Clustering High Dimensional Data: A Graph-Based Relaxed Optimization Approach" Information Sciences, to appear.

[**J30**] **I. Levner**, H. Zhang and R. Greiner, "Heterogeneous Stacking for Classification Driven Watershed Segmentation", EURASIP Journal on Advances in Signal Processing, Jan 2008.

[**J31**] **T. Van Allen**, R. Greiner **A. Singh**, and P. Hooper, "Article title: Quantifying the Uncertainty of a Belief Net Response: Bayesian Error-Bars for Belief Net Inference", Artificial Intelligence, 172 (2008) 483-513.

[**J32**] **L. Li**, V. Bulitko and R. Greiner, "Focus of Attention in Reinforcement Learning", Journal of Universal Computer Science, 13(24), October 2007.

[**J33**] C. Slupsky, K. Rankin, J. Wagner, H. Fu, D. Chang, A. Weljie, E. Saude, B. Lix, D. Adamko, S. Shah, R. Greiner, B. Sykes, and T. Marrie, "Investigations of the Effects of Gender, Diurnal Variation and Age in Human Urinary Metabolomic Profiles", Analytical Chemistry, August 2007.

[**J34**] David S. Wishart, Dan Tzur, Craig Knox, Roman Eisner, An Chi Guo, Nelson Young, Dean Cheng, Kevin Jewell, David Arndt, Summit Sawhney, Chris Fung, Lisa Nikolai, Mike Lewis, Marie-Aude Coutouly, Ian Forsythe, Peter Tang, Savita Shrivastava, Kevin Jeroncic, Paul Stothard, Godwin Amegbey, David Block, David. D. Hau, James Wagner, Jessica Miniaci, Melisa Clements, Mulu Gebremedhin, Natalie Guo, Ying Zhang, Gavin E. Duggan, Glen D. MacInnis, Alim M. Weljie, Reza Dowlatabadi, Fiona Bamforth, Derrick Clive, Russ Greiner, Liang Li, Tom Marrie, Brian D. Sykes, Hans J. Vogel, Lori Querengesser, "HMDB: The Human Metabolome Database", *Nucleic Acids Research*, Oxford Journals Online, Volume 35, Pages D521 – D526, January 2007.

[**J35**] **M. Morris**, R. Greiner, J. Sander, A. Murtha and **M. Schmidt**, "Learning a Classification-based Glioma Growth Model using MRI Data", *Journal of Computers*, Academy Publisher, Volume 1(7), Oct/Nov 2006, p. 21–31.

[**J36**] L. Pireddu, D. Szafron, P. Lu and R. Greiner, "The Path-A metabolic pathway prediction web server", *Nucleic Acids Research*, Volume 34 (Web Server issue), July 2006, 6 ms.

[**J37**] S. Damaraju, D. Murray, J. Dufour, D. Carandang, S. Myrehaug, G. Fallone, C. Field, R. Greiner, J. Hanson, C. Cass and M. Parliament, "Association of DNA Repair and Steroid Metabolism Gene Polymorphisms with Clinical Late Toxicity in Patients Treated with Conformal Radiotherapy for Prostate Cancer", *Clinical Cancer Research*, 12(8) (p2545–2554), 15 April 2006.

[**J38**] R. Greiner, R. Hayward, **M. Jankowska** and M. Molloy, "Finding Optimal Satisficing Strategies for And-Or-Trees", *Artificial Ingelligence*, 170: 19–58, January 2006.

[**J39**] G. Van Domselaar, P. Stothard, S. Shrivastava, J. Cruz, A. Guo, X. Dong, P. Lu, D. Szafron, R. Greiner and D. Wishart, "BASys: a web server for automated bacterial genome annotation", *Nucleic Acids Research*, July 2005; 33(Web Server issue): W455–W459.

[**J40**] R. Greiner, **X. Su**, **B. Shen** and **W. Zhou**, "Structural Extension to Logistic Regression: Discriminative Parameter Learning of Belief Net Classifiers", *Machine Learning*, special issue on "Probabilistic Graphical Models for Classification" 59(3), June 2005, p. 297–322.

[**J41**] P. Lu, D. Szafron, R. Greiner, D. Wishart, A. Fyshe, B. Pearcy, **B. Poulin**, **R. Eisner**, D. Ngo and N. Lamb, "PA-GOSUB: A Searchable Database of Model Organism Protein Sequences With Their Predicted GO Molecular Function and Subcellular Localization", *Nucleic Acids Research*, 2005, Vol. 33 (Database issue), D147–D153.

[**J42**] D. Szafron, P. Lu, R. Greiner, D. S. Wishart, **B. Poulin**, **R. Eisner**, **Z. Lu**, J. Anvik, C. Macdonell, A. Fyshe, and D. Meeuwis, "Proteome Analyst: Custom Predictions with Explanations in a Web-based Tool for High-Throughput Proteome Annotations", *Nucleic Acids Research*, Volume 32, July 2004, p. W365-W371.

[**J43**] J. Listgarten, S. Damaraju, **B. Poulin**, L. Cook, J. Dufour, A. Driga, J. Mackey, D. Wishart, R. Greiner and B. Zanke, "Predictive Models for Breast Cancer Susceptibility from Multiple, Single Nucleotide Polymorphisms", *Clinical Cancer Research*, 10(2725–2737), 15 April 2004.

[**J44**] **Z. Lu**, D. Szafron, R. Greiner, P. Lu, D. Wishart, **B. Poulin**, J. Anvik, C. Macdonell, and **R. Eisner**, "Predicting Sub-cellular Localization using Machine-Learned Classifiers in Proteome Analyst", *Bioinformatics*, 2004 20: 547–556.

[**J45**] R. Greiner, A. Grove and D. Roth: "Learning Cost-Sensitive Active Classifiers", *Artificial Intelligence*, 139:2, pp. 137–174, Sept 2002.

[**J46**] **J. Cheng**, R. Greiner, J. Kelly, D. Bell and W. Liu, "Learning Bayesian Networks from Data: an Information-Theory Based Approach", *Artificial Intelligence*, 137:1-2, pp. 43–90, 2002

[**J47**] D. Wishart, L. Querengesser, B. Lefebvre, N. Epstein, R. Greiner, and **J. Newton**, "Medical Resonance Diagnostics — A New Technology for High Throughput Clinical Diagnostics", *Journal of Clinical Chemistry*, 47:1918–1921, October 2001.

[**J48**] R. Greiner, C. Darken and N. Santoso, "Efficient Reasoning", *Computing Surveys*, 33:1 (March 2001), p. 1–30.

[**J49**] R. Greiner: "The Complexity of Theory Revision", *Artificial Intelligence*, 107:2 (February 1999), p. 175–217.

[**J50**] R. Greiner: "The Complexity of Revising Logic Programs", *Journal of Logic Programming*, 40:2-3, (Aug-Sept 1999), p. 273–298.

[**J51**] R. Greiner, A. Grove and A. Kogan: "Knowing What Doesn't Matter: Exploiting the Omission of Irrelevant Data", *Artificial Intelligence*, 97:1–2 (December 1997), p. 345–380.

[**J52**] R. Greiner and **R. Isukapalli**: "Learning to Select Useful Landmarks", *IEEE Transactions on Systems, Man and Cybernetics – Part B*, Special issue on Learning Approaches to Autonomous Robots Control (ed., M. Dorigo), 26:3 (June 1996), p. 437–449.

[**J53**] R. Greiner: "PALO: A Probabilistic Hill-Climbing Algorithm", *Artificial Intelligence*, 84:1–2 (July 1996), p. 177–204.

[**J54**] R. Greiner and P. Orponen: "Probably Approximately Optimal Satisficing Strategies", *Artificial Intelligence*, 82:1–2 (Apr 1996), p. 21–44.

[**J55**] R. Greiner: "Finding Optimal Derivation Strategies in Redundant Knowledge Bases", *Artificial Intelligence*, 50:1 (1991) 95–115.

[**J56**] P.E. Caines, R. Greiner and S. Wang: "Classical and Logic-Based Dynamic Observers", *IMA Journal of Mathematical Control and Information*, 8 (45-80), 1991.

[**J57**] R. Greiner, B. Smith and R. Wilkerson: "A Correction to the Algorithm in Reiter's Theory of Diagnosis" (Technical Note), *Artificial Intelligence*, 41:1 (79–88), November 1989.
[Reprinted in "Readings in Model-based Diagnosis", edited by W. Hamscher, J. de Kleer and L. Console, Morgan Kaufmann, 1992.]

[**J58**] R. Lee, E. Milios, R. Greiner, J. Rossiter, and A. Venetsanopoulos: "On the machine analysis of radar signals for ice profiling", *Journal of Signal Processing*, 18 (371–386), December 1989.

[**J59**] R. Greiner: "Learning by Understanding Analogies", *Artificial Intelligence*, 35:1 (81–125), May 1988.

[**J60**] R. Greiner: "Against the Unjustified Use of Probabilities: A Critique of Cheeseman's *An Inquiry into Computer Understanding*", *Computational Intelligence: An International Journal*, *Taking Issue* section, IV:1 (79–83), February 1988.

Invited (then Refereed) Publications in Refereed Journals

[**I1**] N. Ray, A. Murtha and R. Greiner, "Abnormality Detection From Brain MRI Using Symmetry" Computer Society of India Communications, vol 31, issue 10, pp. 7-10, January 2008 (Invited).

[**I2**] D. Subramanian, R. Greiner and J. Pearl: "The Relevance of Relevance", *Artificial Intelligence*, 97:1–2 (December 1997), p. 1–8.

[**I3**] C. Elkan and R. Greiner, "Book Review of '*Building Large Knowledge-Based Systems: Representation and Inference in the CYC Project*' ", *Artificial Intelligence*, 61:1 (1993), p. 41–52.

[**I4**] R. Greiner, B. Silver, S. Becker and M. Grüninger: "A Review of Machine Learning papers of AAAI-87", *Machine Learning*, 3:1 (August 1988), p. 79–92,

Editor, Books and Special Issues of Refereed Journals

[**E1**] R. Greiner and D. Schuurmans: *Proceedings of the Twenty-First International Conference on Machine Learning*, (ISMB 1-58113-838-5) July 2004, 942 pages. http://www.aicml.cs.ualberta.ca/banff04/icml

[**E2**] E. Boros, J. Franco, E. Freuder, M.C. Golumbic, R. Greiner and E. Mayoraz, Selected Papers from the Fifth International Symposium on Artificial Special Issue on "Symposium on Artificial Intelligence and Mathematics VIII", *Annals of Artificial Intelligence and Mathematics*, 24 (1998) 1–4.

[**E3**] R. Greiner, D. Subramanian and J. Pearl, Special Issue on "Relevance", *Artificial Intelligence*, 97:1-2 (December 1997).

[**E4**] R. Greiner, T. Petsche and S.J. Hanson: *Computational Learning Theory and Natural Learning Systems, Vol IV: Making Learning Systems Practical*, MIT Press (ISBN 0-262-57118-8), February 1997, 432 pp.

Refereed Conference Articles (Full paper refereed, under 1-in-3 acceptance rate)[1]

[**C1**] **N. Zolghadr**, C. Szepesvari, A. Gyorgy, G. Bartok, R. Greiner. Online Learning with Costly Features and Labels. *Neural Information Processing Systems (NIPS)***(*)**, December 2013.

[**C2**] M. Stanescu, S. Hernandez, G. Erickson, R. Greiner, M. Buro. Predicting army combat outcomes in StarCraft. *Artificial Intelligence and Interactive Entertainment Conference (AIIDE)*, October 2013.

[**C3**] **I. Diaz**, P. Boulanger, R. Greiner, **B. Hoehn**, L. Rowe, A. Murtha. An Automatic Brain Tumor Segmentation Tool. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society (IMBS)*, July 2013.

[**C4**] **M. Ben Salah**, **I. Diaz**, R. Greiner, P. Boulanger, **B. Hoehn**, A. Murtha. Fully Automated Brain Tumor Segmentation using two MRI Modalities. *International Symposium on Visual Computing (ISVC)*, July 2013.

[**C5**] **M Hajiloo**, **B Damavandi**, M HooshSadat, F Sangi, J Mackey, C Cass, R Greiner and S Damaraju. Using Genome Wide Single Nucleotide Polymorphism Data to Learn a Model for Breast Cancer Prediction. Biotechnology and Bioinformatics Symposium (BIOT), 2012. (Later extended to appear in *BMC Bioinformatics*)

[**C6**] **S Ravanbakhsh**, **C-N Yu** and R Greiner. A Generalized Loop Correction Method for Approximate Inference in Graphical Models. International Conference on Machine Learning (ICML)**(*)**, June 2012.

[**C7**] **C Yu**, R Greiner, **H Lin**, and V Baracos. Learning patient-specific cancer survival distributions as a sequence of dependent regressors. In *Neural Information Processing Systems (NIPS)***(*)**, 2011.

[**C8**] **I Diaz**, P Boulanger, R Greiner, and A Murtha. A critical review of the effect of de-noising algorithms on MRI brain. In *IEEE Medicine and Biology Society*, 2011.

[**C9**] **X Su**, T Khoshgoftaar, and R Greiner. Vipboost: a more accurate boosting algorithm. In *Florida AI Research Symposium (FLAIRS)*, 2009.

[**C10**] **X Su**, R Greiner, T Khoshgoftaar, and A Napolitano. Using classifier-based nominal imputation to improve machine learning. In *Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, 2011.

[1] All of the following Computing Science conferences are archival venues, and serve as the primary means for disseminating results; the ones marked with a **(*)** are especially prestigious.

[**C11**] **S. Ravanbakhsh**, **B. Poczos**, R. Greiner. "A Cross-Entropy Method that Optimizes Partially Decomposable Problems". National Conference on Artificial Intelligence (AAAI)**(*)**, July 2010.

[**C12**] **L. Li**, **B. Poczos**, C. Szepesvari, R. Greiner. "Budgeted Distribution Learning of Belief Net Parameters". International Conference on Machine Learning (ICML)**(*)**, June 2010.

[**C13**] O. Schulte, G. Frigo, H. Khosravi, R. Greiner. "The IMAP Hybrid Method for Learning Gaussian Bayes Nets". Canadian Conference on Artificial Intelligence (CAI), April 2010.
"Best Paper Prize"

[**C14**] A. Kerhet, C. Small, T. Riauka, R. Greiner, A. McEwan, W. Roa. "Segmentation of Lung Tumours in Positron Emission Tomography Scans: a Machine Learning Approach". Artificial Intelligence in Medicine, July 2009.

[**C15**] P. Hooper, Y. Abbasi-Yadkori, R. Greiner and **B. Hoehn**, "Improved Mean and Variance Approximations for Belief Net Responses via Network Doubling", International Conference on Uncertainty in Artificial Intelligence (UAI)**(*)**, Montreal, June 2009.

[**C16**] **A. Farhangfar**, R. Greiner, Cs. Szepesvari, "Learning to Segment from a Few Well-Selected Training Images", International Conference on Machine Learning (ICML)**(*)**, Montreal, June 2009.

[**C17**] Y. Abbasi-Yadkori, Cs. Szepesvari, **B. Poczos**, R. Greiner, N. Sturtevant, "Learning when to stop thinking and do something!", International] Conference on Machine Learning (ICML)**(*)**, Montreal, June 2009.

[**C18**] Oliver Schulte, Gustavo Frigo, Russell Greiner, Wei Luo and Hassan Khosravi, "A New Hybrid Method for Bayesian Network Learning with Dependency Constraints", CIDM 2009.

[**C19**] **X. Su**, T. Khoshgoftaar, X. Zhu, R. Greiner, "Using Imputation Techniques to Help Learn Accurate Classifiers", ICTAI 2008, November 3-5, 2008, Dayton, Ohio, USA.

[**C20**] **X. Su**, T. Khoshgoftaar and R. Greiner, "VipBoost: a More Accurate Boosting Algorithm", FLAIRS, 2009.

[**C21**] Oliver Schulte, Gustavo Frigo and Russell Greiner, "A New Hybrid Method for Bayesian Network Learning", Symposium on Computational Intelligence and Data Mining (CIDM), 2009.

[**C22**] **X. Su**, T. Khoshgoftaar and R. Greiner, "Imputed Neighborhood Based Collaborative Filtering", 2008 IEEE/WIC/ACM International Conference on Web Intelligence (WI 2008) Australia, 2008.

[**C23**] **J. Lees-Miller**, **F. Anderson**, **B. Hoehn**, R. Greiner. "Does Wikipedia Information Help Netflix Predictions?". International Conference on Machine Learning and Applications (ICMLA), December 2008.

[**C24**] **A. Isaza**, **J. Lu**, V. Bulitko and R. Greiner. "A Cover-Based Approach to Multi-Agent Moving Target Pursuit", Artificial Intelligence and Interactive Entertainment Conference (AIIDE)**(*)**, October 2008.

[**C25**] **C-H. Lee**, **M. Brown**, **W. Shaojun**, A. Murtha, and R. Greiner, "Segmenting Brain Tumors using Pseudo-Conditional Random Fields", Medical Image Computing and Computer-Assisted Intervention (MICCAI)**(*)**, New York. September 2008, (31.0% acceptance rate) p. 359–366.

[**C26**] **I. Levner**, R. Greiner and H. Zhang, "Supervised Image segmentation via Ground Truth Decomposition", IEEE International Conference on Image Processing (ICIP 2008) October 2008, San Diego.

[**C27**] **A. Isaza**, Cs. Szepesvari, V. Bulitko and R. Greiner, "Speeding Up Planning in Markov Decision Processes via Automatically Constructed Abstraction", Uncertainty in Artificial Intelligence (UAI)**(*)**, 306–314, July 2008.

[**C28**] **C-H. Lee**, **M. Brown**, **S. Wang**, A. Murtha and R. Greiner, "Constrained Classification on Structured Data", AAAI (Student Abstract), p. 1812–1813, July 2008.

[**C29**] **X. Su**, T. Khoshgoftaar and R. Greiner, "A Mixture Imputation-Boosted Collaborative Filter", Florida AI Research Symposium (FLAIRS-21), Florida, May 2008.

[**C30**] **A. Farhangfar**, R. Greiner, M. Zinkevich, "A Fast Way to Produce Optimal Fixed-Depth Decision Trees" Tenth International Symposium on Artificial Intelligence and Mathematics (ISAIM 2008), Florida, January 2008.

[**C31**] **X. Su**, T. Khoshgoftaar, X. Zhu, R. Greiner, "Imputation-Boosted Collaborative Filtering Using Machine Learning Classifiers", ACM Symposium on Applied Computing, Fortaleza, Ceara, Brazil, March 16–20, 2008; pp. 949–950.

[**C32**] **X. Su**, R. Greiner, T. Khoshgoftaar, X. Zhu, "Hybrid Collaborative Filtering Algorithms Using a Mixture of Experts", Web Intelligence, Silicon Valley, November 2007.

[**C33**] O. Schulte, W. Lauo and R. Greiner, "Mind Change Optimal Learning of Bayes Net Structure", *20th Annual Conference on Computational Learning Theory (COLT)*(*****), San Diego, July 2007.

[**C34**] **Y. Guo** and R. Greiner, "Optimistic Active-Learning using Mutual Information", *20th International Joint Conference on Artificial Intelligence (IJCAI'07)*(*****), Hyderabad, January 2007 p823-829.

[**C35**] **C-H. Lee**, **W. Shaojun**, F. Jiao, D. Schuurmans and R. Greiner, "Learning to Model Spatial Dependency: Semi-Supervised Discriminative Random Fields", *Neural Information Processing Systems (NIPS06)*(*****), Vancouver, December 2006.

[**C36**] J. Huang, D. Schuurmans, **T. Zhu** and R. Greiner, "Information Marginalization on Subgraphs" *10th European Conference on Principals and Practices of Knowledge Discovery in Data (PKDD 2006)*, Berlin, Sept, 2006.

[**C37**] **C-H. Lee**, R. Greiner, O. Zaine and J. Sander, "Efficient Spatial Classification using Decoupled Conditional Random Fields", *10th European Conference on Principals and Practices of Knowledge Discovery in Data (PKDD 2006)*, Berlin, Sept, 2006.

[**C38**] F. Jiao, **S. Wang**, **C-H. Lee**, R. Greiner and D. Schuurmans, "Semi-Supervised Conditional Random Fields for Segmenting and Labeling Sequence Data via Entropy Regularization", *International Committee on Computational Linguistics and the Association for Computational Linguistics (COLING-ACL)*(*****), July 2006, Sydney.

[**C39**] **C-H. Lee**, R. Greiner and **S. Wang**, "Using Query-Specific Variance Estimates to Combine Bayesian Classifiers", *International Conference on Machine Learning (ICML)*(*****), June 2006, Pittsburgh, p 529–536.

[**C40**] D. Szafron, **B. Poulin**, **R. Eisner**, P. Lu, R. Greiner, D. Wishart, A. Fyshe, B. Pearcy, C. MacDonell and J. Anvik, "Visual Explanation and Auditing of Evidence with Additive Classifiers", *Innovative Applications of Artificial Intelligence (IAAI06)*, July 2006, Boston.

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[**C52**] **T. Zhu**, R. Greiner, G. Häubl, K. Jewell and **B. Price**, "Goal-Directed Site-Independent Recommendations from Passive Observations", *National Conference on Artificial Intelligence (AAAI)*(*****), Pittsburgh, July 2005, p. 549–556.

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[**B4**] **D. Schuurmans** and R. Greiner: "Fast Distribution-Specific Learning", *Computational Learning Theory and Natural Learning Systems, Vol IV: Making Learning Systems Practical*, Chapter 10, p. 155–167, MIT Press, 1997.

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[**B6**] W. Cohen, R. Greiner and **D. Schuurmans**: "Probabilistic Hill-Climbing", in *Computational Learning Theory and Natural Learning Systems, Volume II: Intersection between Theory and Experiment*, ed. S. Hanson, T. Petsche, M. Kearns and R. Rivest, Chapter 11 (p. 171–181), MIT Press, 1994.

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[**O2**] **S. Wang**, R. Greiner, D. Schuurmans, L. Cheng and S. Wang, "Integrating trigram PCFG and LDA for Language Modeling via directed Markov Random Fields", NIPS Workshop on *Bayesian Methods for Natural Language Processing*, Vancouver, December 2005. (acceptance rate: 25/44 = 56.8%)

[**O3**] R. Greiner, "Using Value of Information to Learn and Classifier under Hard Budgets", *Value of Information in Inference, Learning and Decision-Making (NIPS Workshop)*, Vancouver, December 2005.

[**O4**] **S. Wang**, S. Wang, L. Cheng, R. Greiner and D. Schuurmans, "Stochastic Analysis of Lexical and Semantic Enhanced Structural Language Model", *8th International Colloquium on Grammatical Inference*, Japan, Sept 2006. (acceptance rate: 25/44 = 56.8%)

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[**O7**] **R. Isukapalli**, A. Elgammal and R. Greiner, "Learning a Dynamic Classification Method to Detect Faces and Identify Facial Expression" *IEEE International Workshop on Analysis and Modeling of Faces and Gestures*, pp 70-84, (http://mmlab.ie.cuhk.edu.hk/iccv05/)

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[**O17**] **T. Zhu**, R. Greiner, G. Häubl, **B. Price** and K. Jewell, "Behavior-based Recommender Systems for Web Content" *International Conference on Intelligent User Interfaces (IUI-2005) Workshop on the Next Stage of Recommender Systems Research (Beyond Personalization 2005)*, San Diego, CA, p. 83-88.

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[**O49**] R. Greiner: "Balancing Chemical Equations," *APL Quote Quad* (Spring 1974).

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[**M2**] R. Greiner and D. Subramanian: "Summary of 'Relevance' Fall Symposium", *AI Magazine*, No. 16, p. 10, Spring 1995.

[**M3**] R. Greiner: "Annual Meeting of the CIAR AIR Group", *Canadian Artificial Intelligence*, No. 14, p. 11–12, January 1988.

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[**N1**] **R. Eisner**, R. Greiner and D. Wishart, "Chemical Class Prediction in the Human Metabolome" Canadian Proteome Society Regional Meeting - Omics and Systems Biology, February 2008.

[**N2**] "A Novel Approach to Constructing more "Intelligent" Planning Target Volumes for Glioma Patients." September 2006.

[**N3**] Wishart DS, Li L, Greiner R, Sykes B, Bamforth F, Vogel H, Querengesser L, Forsythe I. "Metabolomics and the Human Metabolome Project", poster presented at CHI's Identifying and Validating Metabolic Markers for Drug Development and Clinical Studies poster session, Orlando, Florida, December 4-5, 2006.

[**N4**] Eisner R, Knox C, Greiner R, Wishart DS. "Predicting Chemical Properties of Small Molecules", poster presented at the Second Annual Metabolomics Symposium: Exploring the Human Metabolome poster session, Timms Centre, University of Alberta, October 12, 2006. (Also presented at the Intelligent Systems in Molecular Biology Conference, Fortaleza, Brazil, August 4-7, 2006.)

[**N5**] Wagner J, Greiner R, Baracos V, Mourtzakis M, Prado C, Slupsky C, Rankin K, Chang D, McGeer A, Marrie T, Nikolai L, Lewis M, Coutouly M-A, Wishart DS. "Using Metabolomic Profiles to Diagnose Patients", poster presented at the Second Annual Metabolomics Symposium: Exploring the Human Metabolome poster session, Timms Centre, University of Alberta, October 12, 2006.

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[**N8**] D. Wishart, L. Li, R. Greiner, T. Marrie, B. Sykes, F. Bamforth, H. Vogel and L. Querengesser: "Metabolomics and the Human Metabolome Project", *Metabolomics Society Meeting*, Boston, June 2006
(also presented at CHI's Identifying and Validating Metabolic Markers for Drug Development and Clinical Studies poster session, Harvard Medical School, Boston, Massachusetts, June 25-29, 2006.)

[**N9**] N. Young, K. Jewell, D. Block, C. Knox, P. Tang, R. Greiner and D. Wishart: "MetaboLIMS: A General Laboratory Information Management System for Metabolomics", *Metabolomics Society Meeting*, Boston, June 2006
(also presented at the Second Annual Metabolomics Symposium: Exploring the Human Metabolome poster session, Timms Centre, University of Alberta, October 12, 2006.)

[**N10**] Y. Wang, S. Damaraju, C. Cass, D. Murray, G. Fallone, M. Parliament and R. Greiner, "Analysis of Single Nucleotide Polymorphisms in Candidate Genes and Application of Machine Learning Techniques to Predict Radiation Toxicity in Prostate Cancer Patients Treated with Conformal Radiotherapy", *Alberta Cancer Board Research Retreat*, Nov 2005, Banff.
(Also at *American Association for Cancer Research (AACR)*, Washington DC, April 2006)

[**N11**] S. Damaraju, D. Murray, J. Dufour, D. Carandang, S. Myrehaug, G. Fallone, C. Field, R. Greiner, J. Hanson, C. Cass and M. Parliament, "A Comprehensive Genomic Approach to the Identification of Predictive Markers using DNA and Tissue Repair Gene Polymorphisms in Radiation Induced Late Toxicity in Prostate Cancer Patients Treated with Conformal Radiotherapy", *Alberta Cancer Board Research Retreat*, Nov 2005, Banff.
(Also at *American Association for Cancer Research (AACR)*, Washington DC, April 2006)

[**N12**] J. Dufour, Y. Wang, C. Cass, R. Greiner, J. Mackey and S. Damaraju, "Analysis of Single Nucleotide Polymorphisms in Candidate Genes and Application of Machine Learning Techniques for assessing Susceptibility to Breast Cancer in Alberta Women", *Alberta Cancer Board Research Retreat*, Nov 2005, Banff.

[**N13**] **R. Price**, G. Häubl and R. Greiner: "Automatic Construction of Personalized Customer Interfaces", Marketing Science Conference, Erasmus University, Rotterdam, June 25, 2004.

[**N14**] **Shaojun Wang** and Russell Greiner: "Identifying metabolite mentions in text via semi-supervised structured learning of conditional random fields", *Metabolomics Symposium*, Edmonton, Oct 2005.

[**N15**] C. Qiu, J. Li, P. Messenger, **T. Zhu**, and R. Greiner, "Investigating Online Preference Construction and Purchase Propensity under Customized Promotions", Distinguished Scholars Retreat, UofAlberta Business (poster); 6-7/May/04.

[**N16**] S. Shrivastava, C. Knox, P. Stothard, R. Greiner and D. Wishart: "Data Mining Tools for Curation of the Human Metabolome Database", *Metabolomics Symposium*, Edmonton, Oct 2005.

[**N17**] Tzur D, Jeroncic K, Jewell K, Block D, Knox C, Eisner R, Guo A, Stothard P, Forsythe I, Shrivastava S, Greiner R, Wishart DS. "The Human Metabolome Database (HMDB)", poster presented at the Metabolomics Symposium: Understanding the Human Metabolome poster session, Telus Centre, University of Alberta, Oct. 25, 2005.

[**N18**] Wang S, Greiner R. "Text Mining in the Human Metabolome Project: Identifying metabolite mentions in text via semi-supervised structured learning of conditional random fields", poster presented at the Metabolomics Symposium: Understanding the Human Metabolome poster session, Telus Centre, University of Alberta, Oct. 25, 2005.

[**N19**] **R. Eisner**, A. Fyshe, R. Greiner, P. Lu, B. Pearcy, **B. Poulin**, D. Szafron and D. Wishart, "Predicting 400 GO Functions of Proteins", Poster, *Intelligent Systems for Molecular Biology (ISMB)*, Michigan, June 2005.

[**N20**] D. Wishart, B. Pearcy, D. Szafron, P. Lu, A. Fyshe, **B. Poulin**, R. Greiner, **R. Eisner**, "Prediction of Protein Function Across Gene Ontology Terms" Poster, *Intelligent Systems for Molecular Biology (ISMB)*, Michigan, June 2005.

[**N21**] **B. Poulin**, D. Szafron, P. Lu, R. Greiner, D. Wishart, **R. Eisner**, A. Fyshe and N. Lamb: "The Proteome Analyst Suite of Automated Function Prediction Tools", *First Automated Function Prediction SIG, at ISMB 2005*, Detroit, June, 2005

[**N22**] B. Poulin, D. Szafron, R. Greiner, R. Eisner and P. Lu, "RAMMER: Accelerating Protein Function Prediction", *Canadian Proteomics Initiative (CPI)*, Poster, Toronto, Ontario, May 2005.

[**N23**] J. Listgarten, R. Greiner, A. Driga, K. Graham, S. Damaraju, J. Mackey and C. Cass, "Analysis of Molecular and Clinical Data at PolyomX", ACB Annual Research Meeting, Banff, November 8-10, 2004.

[**N24**] **T. Zhu**, R. Greiner, G. Häubl, and B. Price, "WebIC: An All-Web Recommendation System", Distinguished Scholars Retreat, UofAlberta Business (poster); 6-7/May/04.

[**N25**] Wishart DS, Sykes BD, Vogel H, Clive D, Li L, Greiner R, Ellison M, Bamforth F. "NMR and the Human Metabolome Project", abstract presented at the 9th Frontiers of NMR in Molecular Biology Keystone Symposium, Banff, AB, Jan. 29-Feb. 4, 2005.

[**N26**] **J. Newton** and R. Greiner, "Hierachical PRMs for Collaborative Filtering", ICML 2004 Workshop on Statistical Relational Learning and its Connections to Other Fields, July 2004.

[**N27**] A. Fyshe, **R. Eisner**, R. Greiner, P. Lu, D. Meeuwis, **B. Poulin**, D. Szafron, D. Wishart and C. Upton, "Proteome Analyst: An Overview". (Poster), *PENCE Annual Workshop*, January 2004.

[**N28**] A. Driga, R. Greiner, K. Graham, S. Damaraju, D. Wishart, J. Mackey and C. Cass, "Tumor Profile Discovery and Tumor Bank Management with DORA", Annual scientific meeting for the Alberta Cancer Board, 2003.

[**N29**] K. Calder, C. Cass, R. Berendt, S. Damaraju, L. Cook, J. Dufour, A. Driga, K. Graham, E. Pituskin, R. Greiner, A. Reiman, M. Sawyer, D. Wishart, and J. Mackey, "Alberta Cancer Board PolyomX Program", Annual scientific meeting for the Alberta Cancer Board, 2003.

[**N30**] J. Anvik, **R. Eisner**, R. Greiner, P. Lu, Z. Lu, C. MacDonell, **B. Poulin**, D. Szafron, and D. Wishart, "Custom Classifier Creation in Proteome Analyst", CPI meeting [PENCE Bioinformatics-1], May 2003.

[**N31**] **Z. Lu**, J. Anvik, **R. Eisner**, R. Greiner, P. Lu, C. MacDonell, **B. Poulin**, D. Szafron, and D. Wishart, "Using Proteome Analyst for Protein Sub-cellular Localization Prediction", CPI meeting [PENCE Bioinformatics-1], May 2003.

[**N32**] **A. Singh**, R. Greiner, V. Dorian and B. Lefebvre, "Automated diagnosis of IEMs using High-Throughput Quantitative NMR Spectroscopy", ISMB'02, Edmonton, 2002.

[**N33**] J. Listgarten, **B. Poulin**, R. Greiner, D. Wishart, B. Zanke, S. Damar, T. Kolacz, X. Wan, "Cancer, SNPs, and Machine Learning" ISMB'02, Edmonton, 2002.

[**N34**] **B. Poulin**, D. Szafron, P. Lu, R. Greiner, D. Wishart, **R. Eisner**, B. Habibi-Nazhad, "Proteome Analyst – High throughput Protein Function Prediction", ISMB'02, Edmonton, 2002.

[**N35**] R. Greiner and J. Schaeffer (ed.), *Proceedings of the "Effective Interactive Artificial Intellgence Resrouces" Workshop (IJCAI'01)*, AAAI Press, 2001.

[**N36**] R. Greiner and D. Subramanian (ed.), *Proceedings of the "Relevance" Symposium*, AAAI Press, FS-94-02, 1995.

[**N37**] R. Greiner, G. Meredith and R. B. Rao: "An Optimized Theory Revision Module", Learning System Department TechReport, Siemens Corporate Research, SCR-95-TR-539, Feb 1995.

[**N38**] G. Drastal, R. Greiner, C-N. Lee, G. Meredith, C. Mouleeswaran and R. B. Rao: "Knowledge Maintenance Environment", Learning System Department TechReport, Siemens Corporate Research, SCR-94-TR-511, June 1994.

[**N39**] R. B. Rao, G. Drastal and R. Greiner: "The Δ learning system for using expert advice to revise diagnostic expert system fault hierarchies", Learning System Department TechReport, Siemens Corporate Research, September 1994.

[**N40**] S. Hanson, S. Judd, T. Hancock, L. Lin and R. Greiner, "RatBOT: Learning in the Design of a Mobile Robot", Learning System Department TechReport SCR-94-TR-470, Siemens Corporate Research, November 1993.

[**N41**] N. Gupta, S. Judd and R. Greiner: "Opportunities to Apply Machine Learning Techniques to Automate Software Design", Learning System Department TechReport, Siemens Corporate Research, SCR-94-TR-464, December 1993.

[**N42**] R. Greiner: "Principles of Inference Processes", Department of Computer Science, University of Toronto, CSRI-193, April 1987, 52 pp.

[**N43**] R. Greiner: "Learning by Understanding Analogies", (PhD dissertation): Computer Science Department, Stanford University, Technical Report STAN-CS-1071, September 1985, 400 pp.

[**N44**] M. Genesereth, R. Greiner, M.R. Grinberg and D.E. Smith: "The MRS Dictionary", HPP Working Paper 80-24, Stanford University, revised January 1984, 47 pp.

[**N45**] R. Greiner and D.B. Lenat: "RLL-1: A Representational Language Language", HPP Working Paper 80-9, Stanford University, October 1980, 43 pp.

[**N46**] R. Greiner: "Details of RLL-1", HPP Working Paper 80-23, Stanford University, October 1980, 65 pp.

ACADEMIC HISTORY

Research Projects

Major research projects at University of Alberta

- Intelligent Diabetes Management (https://sites.google.com/site/idmuofa2/home) (2011-present)
- Inflammatory Bowel Disease (http://albertaibdconsortium.ca/) (2011-present)
- Alberta Transplant Applied Genomics Centre (http://www.atagc.med.ualberta.ca) (2007–present)
- PolyomX Project (http://www.polyomx.ca) (2002–present)
- Proteome Analyst (http://www.cs.ualberta.ca/∼bioinfo/PA/) (2002–2009)
- Brain Tumor Analysis Prediction (http://www.cs.ualberta.ca/∼btap) (2003–present)
- The Human Metabolome Project (http://www.metabolomics.ca/) (2004–present)
- All Web Recommendation System, WebIC (http://www.web-ic.com) (2003–2005)
- Learning to Classify Patterns in Signals [BioTools/Chenomx] (1997–2000)
- Developing Effective Process and Control Systems [Syncrude] (1997–1999)
- Adaptive User Interfaces (1997–1999)
- Learning Accurate Belief Nets [Siemens] (1997–1999)

Major research projects at Siemens Corporate Research, Princeton,

- Diagnostic Support using Bayesian Nets, 1996–1997
- "The Knowledge Maintanence Environment Project", 1993–1996
- "The Electronic Eye Project", 1993–1995
- "The RatBOT Project: Building an Effective Learning Robot", 1992–1993

Major research projects at the University of Toronto

- "Building Efficient Reasoning Systems", 1988–1991
- "Artificial Intelligence and Systems and Control Theory", 1985–1987
- "Second Generation Expert Systems", 1985–1987

Consultant for "The Silicon Pencil" (Dr. Frederick Hayes-Roth), The Rand Corp. (1982)

Major research projects as Research Assistant at Stanford

- PhD thesis on analogy
- Developed the MRS System with Professor Genesereth — 1982 to 1985
- Designed and implemented RLL System with Professor Lenat — 1979 to 1981.
- Built "Model Matcher" for the Image Understanding Project (ACRONYM) with Professor Binford — 1977 to 1978.

Research Awards

Alberta Innovates Bio Solutions

Funder: The Alberta Food Metabolome Proposal - Comprehensive micronutrient characterization of Alberta-grown foods
With: D. Wishart and R. Greiner
Amount: $480K
Duration: Dec2011–Nov2014

NSERC ENGAGE

Funder: Screening for colorectal cancer and its precursors: a novel partnership
With: R. Greiner (R. Fedorak)
Amount: $25K
Duration: June2012–Dec2012

Catalyst Grant: Secondary Analysis of Neuroimaging Databases

Funder: Diagnostics and Prognostics for Alzheimer's Disease and Related Dementias: Machine Learning Analysis of Existing Neuroimaging Datasets
With: S. Dursun, R. Greiner, A. Greenshaw, et al.
Amount: $49,950/year
Duration: Oct2012–Sept2014

Alberta Innovates Centre for Machine Learning

Funder: Alberta Innovates
With: O. Zaiane, R. Greiner, et al.
Amount: $2M/year
Duration: Apr09–Mar14

The Alberta Food Metabolome Proposal - Comprehensive micronutrient characterization of Alberta-grown foods

Funder: Alberta Innovates Bio Solutions
With: Wishart, Greiner
Amount: $480,000/ 3years
Duration: Dec11–Nov14

Alberta/Pfizer Translational Research Fund Opportunity

Funder: A Highly Novel and Accurate Diagnostic Test for Colonic Polyps Using Metabolomic Technology
With: R Fedorak, D Broadhurst, D Wishart, R Greiner et al.
Amount: $200K
Duration: Jan13–Jun14

Improved Assignment to Best Available Therapy for Myelodysplasia/Acute Myeloid Leukemia

Funder: Terry Fox Research Institute
With: Couban + TFRI MDS/AML Study Group
Amount: $1M
Duration: June2012–May2013

Generating an Encyclopedic Entry About A Query Subject
Funder: Google Gift Grant
With: Greiner, Zaiane, Wishart
Amount: $50,000US
Duration: Jun08

Development and evaluation of genomic selection methods for improving economically important cattle traits
Funder: Agriculture Funding Consortium
With: Wang, Stothard, ...
Amount: $470,000
Duration: Jul08–Jun11

Learning for Bio- and Medical-Informatics
Funder: NSERC Discovery Grant
Amount: $42,000/year
Duration: Apr07–Mar14

The Virtual Biopsy Project: Non-Invasive Molecular Diagnosis in Glioblastoma
Funder: Terry Fox Research Institute
With: Mitchell, Murtha, ...
Amount: $200,000
Duration: Dec09–Mar12

Role of DNA Repair Genes in Breast Cancer Susceptibility in Populations: Discovery and Validation of Markers of Prognostic and Predictive Value From Genome Association Studies
Funder: CBCF
With: Mackey, Damaraju, ...
Amount: $200,000
Duration: Apr10–Mar12

Quantification of Ki67 in ER positive Breast Cancers
Funder: University Hospital Foundation (UHF) Medical Research Competition
With: Hugh, Chibbar, Greiner
Amount: $25,000
Duration: Jan11–Dec11

Genome-Wide Single Nucleotide Polymorphism Based Association Studies in Metastatic Breast Cancer
Funder: ACBRI [Operating]
With: S Damaraju [PI], J Tuszynski, J Mackey, C Cass, R Lai, R Berendt, R Greiner
Amount: $1,151,363
Duration: Apr07–Mar10

Identification and Validation of Pathways Associated with Failure of Standard Adjuvant Therapy in Early Stage Breast Cancer

Funder: Alberta Cancer Board [Operating Grant]
With: J. Mackey [PI], R. Lai, C. Cass, K. Graham, R. Greiner
Amount: $490,914
Duration: Apr07–Mar09

Creation of the Alberta Transplant Applied Genomics Centre (ATAGC)

Funder: CFI [New Initiative Fund]
With: P Halloran [PI] and others
Amount: $5,064,408
Duration: Jan07 – Jan10

Creation of the Alberta Transplant Applied Genomics Centre (ATAGC)

Funder: Alberta Science and Research Investment Program (ASRIP)
With: P Halloran [PI] and others
Amount: $4,134,936
Duration: Jan07 – Jan10

A Genome-Wide Search for Identification of Breast Cancer Risk Factors and Prognostic Markers using Single Nucleotide Polymorphisms

Funder: Alberta Cancer Board: Alberta Breast Cancer Research Initiative
With: S Damaraju [PI], C. Cass, J. Mackey, R. Greiner
Amount: $409,338
Duration: Jun06–May08

Candidate Gene Polymorphisms and Normal Tissue Radiation Toxicity

Funder: Alberta Cancer Board [RIP]
With: M. Parliament [PI], S. Damaraju, D. Murray, J. Wu, H. Lau, R. Scrimger, G. Fallone, R. Greiner
Amount: $225,000
Duration: Apr06 – Mar09

Identification of Clinically Occult Glioma and Characterization of Glioma Behavior

Funder: Alberta Cancer Board: Research Initiative Program
With: R Greiner [PI], J Sander, A Murtha
Amount: $40,000
Duration: Apr06–Mar08

Molecular profile of cachexia in patients with cancer

Funder: Alberta Cancer Board [RIP: Operating Grant]
With: V Baracos [PI], C. Cass, R. Greiner, S. Damaraju, J. Mackey, A. Reiman, T.L. Winti, D. Wishart
Amount: $375,000
Duration: Apr05 – Mar08

Building The Metabolic Toolbox: Enabling Rapid Disease Diagnosis Through Metabolic Profiling

Funder: Genome Canada [Applied Genomics and Proteomics Research in Human Health Application for a Large-Scale Project]
With: D Wishart [PI] and 7 others
Amount: $3.622M
Duration: Sept04–Dec07

Novel Genetic Markers of Breast Cancer Risk

Funder: Canada Breast Cancer Foundation
With: J Mackey [PI] and 6 others
Amount: $189,438
Duration: Jun04–May06

Beta Retrovirus and Breast Cancer Serologic and Genetic Markers of Infections

Funder: Canada Breast Cancer Foundation
With: J Mackey [PI] and 6 others
Amount: $163,200
Duration: Jun04–May06

Diagnostic Applications of Microarrays in Organ Transplantation

Funder: Genome Canada [Applied Genomics and Proteomics Research in Human Health Application for a Large-Scale Project]
With: P Halloran [PI] and 7 others
Amount: $5.52M
Duration: Apr04–Dec07

Exploring Genomic, Proteomic and Dosimetric Determinants of Late Toxicity after Three-Dimensional Conformal Radiotherapy for Prostate Cancer

Funder: Alberta Cancer Board [Research Initiative Program]
With: M Parliment [PI] and 6 others
Amount: $240,000
Duration: Apr03–Mar06

Training Grant

Funder: CIHR
With: C. Cass and 37 others
Amount: $300,000
Duration: Apr03

Harnessing the Web-Interaction Process for Canadian Competitiveness

Funder: Social Science and Humanities Research Council of Canada
With: P. Messinger and 10 others
Amount: $865,750
Duration: Apr03—Mar06

Intelligent Agents in Commercial Computer Games
Funder: IRIS
With: J Schaeffer, M Mueller, R. Holte
Amount: $472,000
Duration: Apr02–Mar05

PolyomX Program: Tumor Banking & Bioprofiling
Funder: ACF (Program Initiation and Infrastructure)
With: C. Cass [PI], S. Damaraju, R. Greiner, L. Li, J. Mackey, M. Sawyer, D. Wishart, R. Berendt
Amount: $1,798,400
Duration: Apr02–Mar07

Alberta Ingenuity Centre for Machine Learning
Funder: Alberta Ingenuity
With: R. Holte, R. Goebel, J. Schaeffer, + R. Sutton, D. Schuurmans, M. Bowling, C. Szepesvari
Amount: $\geq$$1.2M/year; $9.887M over 69 months
Duration: Sept02–Mar08

Misc funds for Conferences (Summer 2002)
Total of $33,000, in 4 individual grants

Learning and Adaptive Algorithms
Funder: NSERC Discovery Grant
With:
Amount: $40,000/year
Duration: Apr02–Mar07

Envisionment-based Modeling for Intelligent Control using Time Interval Petri Networks: Knowledge Representation and Learning
Funder: University of Illinois (ChampaignUrbana)
With: (for V. Bulitko)
Amount: $19,027US
Duration: January 2001

"AI Exploratorium" Demos
Funder: AAAI Organization
With: R. Greiner, J. Schaeffer
Amount: $20,000 US
Duration: Nov99

iCORE chair in Machine Learning Search
Funder: iCORE ISPR funding
Amount: $10,000
Duration: Mar00

Experiments with Constraints and Learning
Funder: NSERC [Equipment Grant]
With: R. Goebel, P. van Beek, R. Greiner
Amount: $29,000
Duration: Apr99–Mar00

Building Effective Belief Nets
Funder: Siemens Corporate Research
Amount: $20,000 US
Duration: Jan99–Sept99

Learning and Adaptive Algorithms
Funder: NSERC Operating Grant
Amount: $35,000/year
Duration: Apr98–Mar01

Support for PDF
Funder: Pacific Institute of Mathematical Sciences
With: (for J Cheng)
Amount: $10,000/year
Duration: Jan99–Dec99

Efficient Reasoning
Funder: Siemens Corporate Research
Amount: $15,000 US [Contract]
Duration: Apr98–Sept98

StartUp
Funder: University of Alberta
Amount: $50,000
Duration: Nov97–Oct99

"Institute for Robotics and Intelligent Systems"
Funder: Federal Centres of Excellence
With: R. Reiter and 12 others
Amount: $346,5000/year
Duration: Jul90–Jun94

"Building Efficient Reasoning Systems"
Funder: NSERC [Operating Grant]
Amount: $16,611/year
Duration: Apr90–Mar92

"Machine Learning: Techniques and Foundations"
Funder: NSERC [Operating Grant]
Amount: $15,000/year
Duration: Apr88–Mar90

Student support, 1999-2001
Total of $56,700, in 15 individual grants

Patents

[**P1**] "System and Method for Solving NonLinear Optimization Problems using Cross Entropy Exploiting Partial Decomposability" with Siamak (Mohsen) Ravanbakhsh, Barnabas Poczos Provisional Patent filed 9 July 2010

[**P2**] "Automatic identification of compounds in a sample mixture by means of NMR spectroscopy"
with D. Wishart, T. Rosborough, B. Lefebvre, N. Epstein, J. Newton, W. Wong; (7181348; Awarded 20 Feb 2007).

[**P3**] "A Method and System for Automatic Detection and Segmentation of Brain Tumors and Associated Edema (Swelling) in Magnetic Resonance Images (MRI)" with M. Schmidt and A. Murtha;
(US Provisional Patent Application filed: 29 April 2005 — 60/675,085)

[**P4**] "An Efficient Data-Driven Theory Revision System"
with R.B. Rao and G. Meredith;
(5787232, Awarded 28 July 1998.)

[**P5**] "Delta learning system for using expert advice to revise diagnostic expert system fault hierarchies" with R.B. Rao and G. Drastal;
(5987445, Awarded 16 November 1999).

[**P6**] "Process, apparatus, media and signals for automatically identifying compounds in a sample"
with D. Wishart, B. Lefebvre, J. Newton, N. Epstein, T. Rosborough, W. Wong
UK Patent: GB2410559
US application filed November 2001.

Professional Affiliations and Activities

Scientific (co)Director: Alberta Ingenuity Centre for Machine Learning,
Director: Oct 2002 – June 2003; July 2006 – Dec 2007
CoDirector: July 2003 – June 2006

Executive Council:
Chief Information Officer, *PolyomX, Inc*, 2002 – 2005
Vice President, *The Canadian Society for Computational Studies of Intelligence*, 1998 – 2000
Steering Committee, *Pacific Institute of Mathematic Sciences*, from 1999
Technical Advisory Board, *CELCorp*, from 2000

CoEditor-in-Chief:
Computational Intelligence: An International Journal until 2006, (with R. Goebel, D. Lin)

Journal Editorial Boards:
Journal of Artificial Intelligence Research (Action Editor, from 2004 – 2007) (Advisory board, from 2008 – 2010)
Machine Learning Journal
Journal of Machine Learning Research

Conference chair:

General chair: Twenty-third Int'l Conference on Machine Learning (ICML'06), 2006
Program chair: Twenty-first Int'l Conference on Machine Learning (ICML'04), (with D. Schuurmans), 2004
Program chair: Fifth Int'l Symposium on Mathematics and Artificial Intelligence (with E. Boros), 1998
General co-chair: Tenth Int'l Conference on Intelligent Systems for Molecular Biology (ISMB'02) (with D. Wishart, W. Gallin), 2002
General chair: Computational Learning and 'Natural' Learning Theory Workshop, 1993
Local arrangements chair: 18th Conference on Artificial Intelligence (AAAI02)
Local arrangements chair: 18th Conference on Uncertainty in Artificial Intelligence (UAI'02)
Organizer/Program chair (with J. Schaeffer): IJCAI'01 Workshop on "Effective Interactive AI Resources", 2001
Knowledge Representation Chair, International Conference on Tools with Artificial Intelligence (ICTAI96), 1996
Organizer/Program chair (with D. Subramanian): AAAI Fall Symposium on "Relevance", 1994
Workshop chair: Machine Learning/Computational Learning Theory (ML94/COLT94), 1994
Tutorial chair: Machine Learning/Computational Learning Theory (ML94/COLT94), 1994

Panels:
SIGART/AAAI-98 Doctoral Consortium Panel

Appointments:
Associated Member of Faculty of Graduate Studies, University of Guelph, June 1988.
Associated Member of Faculty of Graduate Studies, University of Toronto, July 1988 – June 1994.

Member of Conference Programme Committee:
National Conference on Artificial Intelligence (AAAI), (Senior)
Conference on Uncertainty in Artificial Intelligence (UAI)
Discovery Science
International Symposium on Artificial Intelligence and Mathematics
International Conference on Machine Learning (ICML)
Canadian Society for Computational Studies of Intelligence Conference (CSCSI)
Computational Learning and Natural Learning Theory Conference (CLNL)
User Modeling
Computational Intelligence for Robotics and Automation

Member of Workshop/Symposium Programme Committee:
IEEE CIRA-2001: Computational Intelligence in Robotics and Automation
UAI-2000 Workshop on "Fusion of Domain Knowledge with Data for Decision Support"
ICML-2000 Workshop on "Attribute-Value and Relational Learning"
First Canadian Workshop on Soft Computing, 1999.
Student Abstract and Poster Program, AAAI-99.
Learning Complex Behaviors in Adaptive Intelligent Systems, 1996
Knowledge Compilation and Speedup Learning Workshop, 1993

Referee for:

Artificial Intelligence Journal
Computational Intelligence: An International Journal
Computational Optimization and Applications: An International Journal
European Journal of Operational Research
IEEE/ACM Transactions on Computational Biology and Bioinformatics
IEEE Transactions on Pattern Analysis and Machine Intelligence
IEEE Transactions on Systems, Man and Cybernetics

Machine Learning Journal
MIT Encyclopedia of the Cognitive Sciences (MITECS)
Journal of Artificial Intelligence Research
Journal of the ACM
Journal of Logic Programming
User Modeling and User-Adapted Interaction
The Annals of Mathematics and Artificial Intelligence
The Arabian Journal for Science and Engineering
American Control Conference (IEEE)
International Joint Conference on Artificial Intelligence
Pacific Rim International Conference on Artificial Intelligence
IFIP World Computer Congress
Neural Information Processing Systems (NIPS)
Principles of Knowledge Representation and Reasoning Conference
Symposium on Foundations of Computer Science (FOCS)

Natural Sciences and Engineering Research Council Funding Proposals
National Science Foundation Funding Proposal
ACM Distinguished Dissertation Award

PRESENTATIONS

Interviews and Articles for the Popular Press

"Research Profile: Brain Tumour Analysis Project", *UofAlberta Computing Science Webpage*, May 2007 (Interviewer: Erin Ottosen).

"Helping the World Understand Data", *Alberta Venture* (ASTech Spotlight), Feb 2007.
`http://www.albertaventure.com/user/File/ASTech_Feb07.pdf`

"Alberta researchers first to complete the human metabolome", *Genome Alberta*, 23 Jan 2007.
`http://www.newswire.ca/en/releases/archive/January2007/23/c8193.html`,

"Machine learning attracting major players", *Business Edge*, Vol 7, No 1, 12 Jan 2007. (Interviewer: L Severs) `http://www.businessedge.ca/article.cfm/newsID/14409.cfm`

"Web IC: The Intuitive Browser", *Innovation Alberta* #203 (Radio Interview: C Chroucher), 6 June 2006; with T. Zhu, B. Price.
`http://innovationalberta.com/article.php?articleid=722`

"Machine Learning Breakthrough on Mapping Brain Tumours", *Innovation Alberta* #175 (Radio Interview: C Chroucher), 20 Sept 2005: with A. Murtha, M. Schmidt
http://innovationalberta.com/article.php?articleid=624

"McCalla profs focus on research", *Folio*, 16 Dec 2005.

"Alberta researchers working to map the human brain", Paragraph in "Alberta Surplus" newsletter, sent to all Albertans (Nov 2005)

"Another global first for Edmonton", *Edmontonians*, Nov 2005.
http://www.cs.ualberta.ca/~greiner/PAPERS/Edmontonians-Nov05.html

"Creation of the Alberta Ingenuity Centre for Machine Learning", (Radio Interview: C Croucher), Nov 2003
http://www.innovationalberta.com/article.php?articleid=352

Alberta Ingenuity Centre (October 2002) – on television, radio

"Launching the Alberta Ingenuity Centre for Machine Learning", *CBC Radio*, 3/Oct/2002.
http://www.cbc.ca/radio1/edm-am/moreinterviews.html

"Brain drain flows the other way", *Edmonton Journal*, 2/Oct/02.

"Looking for the ghost in the machine", *Express News*, 4/Jan/2002 (Interviewer: Stephen Osadetz).

"What is Artificial Intelligence?", *Express News*, 23/Aug/01. http://www.expressnews.ualberta.ca/expressnews/articles/ideas.cfm?p_ID=881&section=Guest%20Column

Invited Presentations at Conferences

"Towards Personalized Medicine", *American Congress of Epidemiology*, Montreal, June 2011.

"Summary of ICML'04", *Ninteen International Joint Conference on Artificial Intelligence (IJCAI-05)*, Pittsburgh, July 2005.

"Bayesian Belief Nets for Fun and Profit", *Fourteenth Annual Royce Conference*, Edmonton, March 2000.

"Summary of KR'91", *Twelfth International Joint Conference on Artificial Intelligence (IJCAI-91)*, Sydney Austalia, August 1991.

Invited Papers presented at meetings and symposia

J. Schaeffer and R. Greiner, "The AIxploratorium: A Vision for AI and the Web", *Proceedings of the IJCAI 2001 Workshop on Interactive AI Resources*, p. 23–25, Seattle, Aug 2001.

"Using Autoencoding Networks for Tramp Metal Detection", (with V. Bulitko), *AAAI'2000 Workshop on "Learning from Imbalanced Data Sets"*, Austin, July 2000.

"Exploiting Common Relations: Learning One Bayesian Net for Many Classification Tasks", (with W. Zhou), *ICML Workshop: "Attribute-Value and Relational Learning: Crossing the Boundaries"*, July 2000.

"Adaptive User Interfaces: Predicting Unix Command Lines" (with B. Korvemaker), *CASCOM*, Toronto, October 1999.

"Learning Efficient Derivational Strategies", *TIMS XXXII International Meeting*, Anchorage Alaska, June 1994.

"Survey of Selected Technical Papers", *Sixth International Workshop on Machine Learning*, Cornell, June 1989.

"Classical and Logical Observers for Finite Automata, Part II", *Workshop on AI and Discrete Event Control Systems*, NASA-Ames Research Center, Moffett Field, California, July 1988.

"The Use of Analogy for Knowledge Acquisition", Computer Forum, Stanford University, February 1984.

"Representing Large Knowledge Bases", Computer Forum, February 1980.

Invited Technical Talks

Boston University, Bosch Research [CA], Brown University [Providence], Carnegie Mellon University [Pittsburgh] (7), Carleton University [Ottawa, Canada], Cornell University [Ithaca] (2), CRIM Research Seminar [Montreal, Canada], Google [Mountain View, CA], GTE Laboratory [Waltham, MA], IBM [Yorktown Heights] (2), Information Systems Institute/USC [Los Angeles] (3), Institute of Biomedical Engineering, University of Toronto, Johns Hopkins University [Baltimore], La Trobe University [Melbourne, Australia], McGill University [Montreal, Canada] (3), McMaster University [Hamilton, Canada], Microelectronic Computer Technology Corporation [Austin, Texas] (2), Princeton University (2), Massachusetts Institute of Technology [Boston] (2), New Mexico State University [Los Cruces], Overture [Pasadena], Ricoh Research [Menlo Park, CA], Rockwell Research Seminar [Palo Alto, CA], Rutgers University [New Brunswick, NJ] (6), Siemens Corporate Research [Princeton] (2), Simon Fraser University [Canada] (3), SRI International [Menlo Park, CA] (3), Stanford University (4), University of Alberta at Edmonton (5), University of California at Berkeley (2), University of California at Los Angeles (3), University of California at Irvine (4), University of California at San Diego (2), University of Guelph [Canada], University of Illinois at Champaign-Urbana, University of Maryland at College Park, University of Michigan, University of Pennsylvania [Philadelphia], University of Pittsburgh (2), University of Texas at Austin, University of Toronto [Canada] (6), University of Waterloo [Canada] (3), University of Western Ontario [London, Canada], Xerox PARC [Palo Alto, CA] (2), York University [Canada], Yahoo! [CA] (3), 23&me [CA],

Invited Public Lectures

"Discovering similarity in high-dimensional space", Using the "Omics" Technologies to Phenotype Disease: A Satellite Pre-Symposium of the 9th Banff Conference on Allograft Pathology, June 2007. [Edmonton]
"Theory and Practice of Machine Learning", ICT Forum, Oct 2003.
CBC Management Information Science Workshop [Ottawa, Canada]
Computing Insights '89 [Toronto]
Dynelectron Systems Inc. [Downsview, Canada]
High School Teacher's Symposium [Toronto]
O'Neil Collegiate [Oshawa, Canada]
Ontario Association for Mathematics Education [Toronto]
Scarborough College Association of Graduate Students Seminar Series [Toronto]
Siemens Stromberg-Carlson, Boca Rotan, Florica
Suncor Youth Symposium on Artificial Intelligence [Toronto]
Symbolics-sponsored workshop [Toronto]
Syncrude [Edmonton]
UTLAS International Lecture Series [Toronto]

COURSES TAUGHT

Undergraduate Courses

Cmput 300	Computers and Society [W11]
Cmput 101	Introduction to Computing [F12] [overhauled class]
Cmput 366	Intelligent Systems [F00, F01, F02, F06, F07] (U. of A.) [designed new class]
Cmput 466 / 551	Topics in Machine Learning [W99,W00,W01, W02, W03, W05, W08] (U. of A.) [designed new class]
Cmput 325	Non-Procedural Programming Languages [W98, W99, F04] (U. of A.)
–	Artificial Intelligence Seminar [continuously from April 1998] (U. of A.)
CSC324	Principles of Programming Languages [F88, S89, F89, F90] (U. of T.)
CSC484	Applied Artificial Intelligence [S88, S89, S90, S91] (U. of T.) [designed new class, with Dr. E. Milios]
CSC118	Computer Applications [S86, S90, S91] (U. of T.)

Graduate Courses

Cmput 603 Teaching and Research Methodology [F08, F09, F10] (U. of A.)

Cmput 651 Topics in Machine Learning [F98] (U. of A.) Now "Cmput 466/551" [W00] [designed new class]

Cmput 651 Probabilistic Graphical Models [W07, F08, W13] (U. of A.) [designed new class]

Cmput 551 Introduction to Knowledge Representation [W98] (U. of A.) [designed new class]

CSC2502 Introduction to Knowledge Representation [F88, F89, F90] (U. of T.) [designed new class]

Courses for Industry

Introduction to Artificial Intelligence — from Expert Systems to Robot Vision (in Toronto, one week) August 1989.

STUDENTS SUPERVISED

Post-Doctoral Fellows

Chun-Nam Yu, "Patient Specific Survival Prediction", Sept 2010 – Sept 2012 (now at Bell Labs).

Matt Brown, "Brain Tumor Project", Feb 2007 – Dec 2008 (now PDF at UofA Medical).

Sergey Kirchner, June 2006 to Aug 2008 (now Assistant Professor, Statistic, at Purdue University).

Robert Price (with P Messinger, Business School), "Customer Profiling", Sept 2003 to July 2006 (now at PARC)

Shaojun Wang, "Conditional Maximum Entropy", Sept 2003 to August 2006. (now at Assistant Professor, Computer Science, Wright University)

Omid Madani, "Learning and Markov Decision Processes", Oct 2001 to June 2003 (now at SRI).

Vadim Bulitko, "Learning and Classification", March 2000 to Sept 2000 (now Associate Professor, University of Alberta)

Jie Cheng, "Learning Bayesian Classifiers", July 1998 to Oct 1999 (now Research Scientist, GMK).

Doctoral Students

Primary supervisor:

Mohsen Hajiloo (Ph.D. @ UofA [Sept 2009 -..])

Sheehan Khan (NSERC, Alberta Ingenuity, Ralph Steinhauer; Ph.D. @ UofA [Sept 2008 -..])

Farzaneh Mirzazadeh (NSERC; from April 2012 - ... (w/D Schuurmans))

Siamak (Mohsen) Ravanbakhsh (M.Sc. @ UofA [May'08- Sept'09]; PhD @ UofA [Oct'09 - ...])

Saman Vaisipour (Ph.D. @ UofA [January 2008 -..])

Graduated

Alireza Farhangfar (NSERC; from Sept 2006 - March 2013). *Now ...*

Chi-Hoon Lee (NSERC, iCORE; 2003 – 2008) *Now at Yahoo! Research*

Dan Lizotte (NSERC, iCORE, Killam, w/ D.Schuurmans; 2004-2008) *Now Prof at UofWaterloo*

Ilya Levner (NSERC, iCORE, Alberta Ingenuity; w/H Zhang, from 2004 - 2008) *Now PDF with R Mitchell [UofCalgary]*

Yuhong Guo (w/D Schuurmans, from Jan 2001 – Dec 2007) *Now at Temple University*

Ramana Isukapalli, "Efficient Image Interpretation", Rutgers, May 2007 (from Sept 2000) *Now at Bell Labs*

Tingshao Zhu: "Goal-Directed Complete-Web Recommendation" University of Alberta, January 2006 (from Sept 1999)
Prof in China; started company, "EzSeer"

Dale Schuurmans: "Effective Classification Learning", University of Toronto (Sept 1988 – January 1996).
Now a CRC professor at the University of Alberta.

On Depth/Reading Committee:

Mohammed ElRamly (Feb 2000 — 2006)

Dmitri Gorodnichy: "Using Machine Learning Methods for Image Interpretation", University of Alberta (Feb 1998).

Xianyi Yang: "Neural Network Approaches to Real-Time Trajectory Generation and Motion Control of Robot Systems", University of Alberta (August 1998).

Tony Plate: "Knowledge Representation in High Level Connectionist Models", University of Toronto (Dec 1991).

Manfred Stede: "The Search for Robustness in Natural Language Understanding", University of Toronto (Feb 1991).

Javier A. Pinto: "Theories of Time, Actions and Plans", University of Toronto (Dec 1990).

Michael Grüninger: "Model Theoretic Perspectives in AI", University of Toronto (Feb 1990).

Susan W. McRoy: "Nonmonotonic Reasoning in Natural Language", University of Toronto (Dec 1989).

Craig Boutilier: "Logical Foundations for Default Reasoning", University of Toronto (May 1989).

Brad Myers: "Creating User Interfaces by Demonstration", University of Toronto, (May 1987).

External Examiner:

Yaling Zheng (PhD @ Univ Nebraska, Lincoln [Prof Steven Scott]; Dec 2011)

Deng Kun (PhD @ Univ Nebraska, Lincoln [Prof Steven Scott]; Aug 2009)
Now PDF at UofMichigan.

Mahdi Shafiei (PhD @ Dalhousie [Prof Evangelos Milios]; Aug 2009)

Moninder Singh, "Learning Belief Networks", University of Pennsylvania 1997.
Now working at IBM Research, Yorktown Heights.

Oliver Schulte: "Data-minimal Learners" Carnegie Mellon University 1997.
Now CS professor at Simon Fraser University.

Nick Lewins: "Practical Solution-Caching for Prolog: An Explanation-Based Learning Approach", University of Western Australia at Nedlands, Jan 1993.

Masters Students

Meysam Bastani (M.Sc. @ UofA [May 2011-...]) [Intelligent Diabetes Management (w/E Ryan)]

Robert Tso (M.Sc. @ UofA [Aug 2011-...] [Related to Bowel Disease (w/K Madson, R Fedorak (FoMD)]

Junfeng Wen (M.Sc. @ UofA [Apr 2012-...]) [Covariate Shift (w/C-N Yu)]

Graduated

Navid Zolghadr (M.Sc. @ UofA [May 2011-Dec2012]; now Blackberry)

Gagan Sidhu (M.Sc. @ UofA [Feb 2011-Sept 2012]) [fMRI analysis, w/M Brown]

Hsiu-Chin Lin (M.Sc. @ UofA [S2009-F 2010]) [Survival predicting; Now at U of Edinburgh]

Babak Damavandi (M.Sc. @ UofA [S2010-Nov 2011]) [Understanding GWAS; now at Google]

Nasimeh Asgarian, (M.Sc. @ UoA [Sept 2004 to June 2007; Now Research Programmer, AICML]).

Peter Wang (MSc @ UofA [May 2006- 2008]).

Maysam Heydari, (MSc @ UofA [May 2006 - 2009]).

Aloak Kapoor, (MSc @ UofA [Sept 2004–Sept 2005; now at IBM]).

Mark Schmidt, University of Alberta (MSc @ UofA; Sept2002 to Aug2005; now PDF @ INRIA). [nonimated "Best MSc Thesis"]

Marianne Morris (w/J. Sanders), (MSc @ UofA [May2002 – Oct2005; now working as Instructor]).

Ajit Singh, (MSc @ UofA [Sept2001 – Sept 2004; now LinkedIn]).

Jack Newton (MSc @ UofA [Sept2001 – June2003; then Chief Scientific Officer, ChenomX; now new company]).

Peng Wang, (MSc @ UofA [May2000 – Sept2004; now at Smart Technology, Calgary]).

Zhiyong Lu (w/D. Szafron) (MSc @ UofA [May2002 – June2004; then PhD at U of Colorado, Boulder; now NIH]).

Lihong Li (w/V. Bulitko) (MSc @ UofA [May2003 – Aug2004; then PhD student at Rutgers; then Yahoo!; now Microsoft]).

Xiaomeng Wu, University of Alberta (May 2002 – Aug 2004; now PhD student at UofAlberta).

Brett Poulin (w/D. Szafron) University of Alberta (May 2003 – Sept 2004; then Medical Student at UofCalgary; now MD).

Haiyan Zhang, Pharmacy, University of Alberta (joint with D. Wishart, November 2001; now working at `Cross Cancer Institute`.)

Wei Zhou, University of Alberta (October 2001; now PhD student at UofWaterloo).

Tim van Allen, "Handling Uncertainty when Handling Uncertainty", University of Alberta (Oct 2000; now works at `digiMine`.)

Yong Gao, "Threshold Phenomena in NK Landscapes", University of Alberta (on committee; student of J. Culberson, Oct 2000).
Now Associate Professor at UBC-Okanagan.

Benjamin Korvemaker, "You Can't Always Be Right... But Sometimes It'd be Nice: Predicting Unix Command Lines", University of Alberta (Nov 2000; now PhD student at UofWaterloo.)

Ping Gu, "Learning Layout Rules for Yellow Pages", University of Alberta (on committee; student of R. Goebel, Dec 1998).

Brad Brown: "Robot Orienteering: Path Planning and Navigation with Uncertain Vision", University of Toronto, January 1991 (co-supervised with E. Milios, from April 1990).

Siu Wa Cindy Chow: "Obtaining an Efficient Derivational Strategies for a Conjunctive Search Space", University of Toronto, September 1990.

Karsten Verbeurgt: "On the Learnability of DNF Formulae", University of Toronto, May 1990 (co-supervised with A. Borodin, from January 1988).

Joseph Likuski: "Integrating Redundant Learned Rules in a Knowledge Base", University of Toronto, October 1988.

Rayan Zachariassen: "A Hypothesis Management System for Krypton", University of Toronto October 1987.

External Examiner:

Philip Fong: "A Quantitative Study of Hypothesis Selection", University of Waterloo, April 1995.

Undergraduates

Ryhan Arthur: "Growth Model for Brain Tumors", Summer 2006.

James Wagner: "Relating Disease State to Metabolomic Profiles", Summer 2006.

David Vormittag: "Evaluating Answers to Questions", University of Toronto, May 1991.

Jeffrey Chan: "Finding Optimal Satisficing Strategies for AND-OR Trees", University of Toronto, May 1991.

Jonathan Wong: "Improving the Accuracy of a Representational System", University of Toronto, May 1991.

Daniel Phalp: "Derivational Efficiency: Probably Approximately Optimal Strategies and Macro Operators", University of Toronto, May 1991.

William Munroe: "Efficiently Producing Near-Optimal Control Strategies", University of Toronto, June 1990.

Nicholas D. Brownlow: "A Computer-Based Learning Theory for Final Segment Extrametricality", University of Toronto (Bachelor of Arts, Honor Thesis), April 1988 (co-supervisor with E. Dresher).

Harry Amow: "Research into Computer Game Playing", University of Toronto, April 1987.

ADMINISTRATIVE TASKS

Member, NSERC Evaluation Committee for 1507 (Computer Science); 2011-2013.

Member, Faculty of Science Advisory Selection Committee, 2001–2005.

Member, Planning Focus Groups for the Long Range Development Plan (LRDP) for the University of Alberta, 2001–2005.

Faculty of Science representative on Engineering Faculty Council, 1998–2002.

Coordinator, "Distinguished Lecture Series", Department of Computing Science (University of Alberta), 1999–2001.

Director, "Artificial Intelligence Laboratory", Department of Computing Science (University of Alberta), 1999–present.

Executive Committee, Department of Computing Science (University of Alberta), 1998–2000.

Coordinator, "AI Seminar Series", Department of Computing Science (University of Alberta), 1998–present.

Graduate Committee, Department of Computing Science (University of Alberta), 1997–2005.

Computing Resources Policy Committee, Department of Computing Science (University of Alberta), 1997–98.

Chair, Recruiting Committee, Siemens Corporate Research, 1996, 1997.

Summer Student Liason, Siemens Corporate Research, 1992.

MSc Breadth Requirements Committee, Department of Computer Science (University of Toronto), 1990.

PhD Admission Committee, Department of Computer Science (University of Toronto), 1988 and 1989.

United Way Campaign Coördinator for the Department of Computer Science (University of Toronto), 1987.

PERSONAL DATA

Citizenship: USA, Canada

(March 2013)