# Oliver Schulte Professor

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#### **Research Areas**

Machine Learning for Structured Enterprise Data, Learning Theory, Computational Game Theory

#### **Personal Details**

Date of Birth: December 21, 1968. Place of Birth: Toronto, Canada

Family Status: Married

Citizenship: German and Canadian



#### **Curriculum Vitae – Table of Contents**

Part I – Education and Employment	1
Part II – Research Activities	۷
Part III – Service	11
Part IV – Teaching	17

# Part I – Education and Employment

### **Educational Background**

19	97	Ph.D.	Carnegie Mellon University, Pittsburgh, PA, USA,
			Logic and Computation Program "Hard Trade-offs in Scientific Inquiry"
19	94	M.S.	Logic and Computation, <b>Carnegie Mellon University</b> , Pittsburgh, PA, USA "The Computable Testability of Uncomputable Theories"
19	92	B.Sc.	Cognitive Science with High distinction, University of Toronto, Canada
19	88	Abitur	Germany (Grade 1 - Grade 13, final grade average 1.1, maximum 1.0)

# **Employment History at Academic Institutions**

08/2015 – Current	Full Professor, School of Computing Science, Simon Fraser University
09/2007 – 08/2015	Associate Professor, School of Computing Science, Simon Fraser University
09/2004 - 08/ 2007	<b>Associate Professor</b> , Department of Philosophy and School of Computing Science, Simon Fraser University
10/1998 - Current	<b>Adjunct Professor</b> , Department of Computing Science, University of Alberta
07/2001 - 08/2004	<b>Assistant Professor</b> (Tenure-Track), Department of Philosophy and School of Computing Science, Simon Fraser University
07/1997 - June 2001	<b>Assistant Professor</b> (Tenure-Track), Department of Philosophy, University of Alberta

# **Other Employment History**

08/ 1995 - May 1996	Research Assistant, Office of Naval Research Project title: "Coordination and Cooperation among Tactical Picture Agents" ONR contract N00014-95-1-1161. Principal Investigator: C. Bicchieri, Carnegie Mellon University
June 1994 - 08/ 1994	<b>Research Intern</b> , Siemens Corporate Research Learning Systems Department, Princeton, NJ, USA
June 1991 - 08/ 1991	Research Assistant in Computational Linguistics, National Sciences and Engineering Research Council of Canada Supervisor: Graeme Hirst. Department of Computer Science, University of Toronto. Funded by an Undergraduate Research Award

# **Awards, Honors and Scholarships**

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2010	Title: Best Paper Award. Canadian AI Conference 2011. Type: Research Organization: Canadian Association for Artificial Intelligence. Details: Collaboration with Gustavo Frigo (M.Sc. Student, SFU) and Russell Greiner (University of Alberta)
2003	Title: Visiting Chair in Cognitive Science Type: Visiting Chair Organization: University of Potsdam, Germany Details: 3-month tenure (2004) in the Cognitive Science program in Potsdam; I was sponsored by the Computer Science department.
1999	Title: Distinguished Junior Scholar in Residence Type: Scholarship Organization: Peter Wall Institute for Advanced Studies Details: University of British Columbia
1996	Title: Carnegie Mellon University Graduate Presentation Award Type: Organization: Carnegie Mellon University Graduate Award Details: Grant towards conference presentation awarded in university-wide competition.
1996	Title: Phi Kappa Phi Honour Society Type: Scholarship
1992	Title: Werner von Siemens Scholarship  Organization: Siemens AG  Details: Covered tuition and living expenses for two years during Master's Degree.
1991	Title: Undergraduate Research Award Type: Research Organization: National Sciences and Engineering Research Council of Canada
1991	Title: Daniel Berlin Scholarship  Organization: Daniel Berlin Scholarship  Details: An award for Cognitive Science specialists at the University of Toronto.
1989	Title: University College Scholarship  Organization: University College, University of Toronto
1988	<b>Title:</b> University College Scholarship <b>Type:</b> Scholarship <b>Organization:</b> University College, University of Toronto
1987	Title: FIDE Chess Master Organization: FIDE Details: During high school I played for the strongest professional team in Germany, together with world champions and contenders such as Boris Spasski, Nigel Short, John Nunn and Lubomir Kavalek.

# Languages

Language	First?	Read?	Write?	Speak?
German	Υ	Υ	Υ	Υ
English	N	Υ	Υ	Υ
Spanish	N	Υ	Υ	Υ
French	N	Υ	N	N

Language	First?	Read?	Write?	Speak?
Latin	N	Υ	N	N
Ancient Greek	N	Υ	N	N

# Part II – Research Activities

### **Research/Project Funding**

#### Summary, Research Funding, total over career

Number of Grants Awarded	21
Total Dollar Amount Awarded	\$578,620

Contract/Grant: Research Grant Awarded: 2015 Period: 2015 - 2015

Project Title: Markov Processes for Big Data Hockey Analytics Funding: NSERC Engage Type:

External Annual: \$25,000 Total: \$25,000 Involvement: Principal Investigator

Collaboration: Industry Partner: Sportlogiq, Montreal, Canada

Contract/Grant: Research Grant Awarded: 2013 Period: 2013 - 2018

**Project Title:** Learning Bayes Nets for Relational Data and Heterogenous Networks **Funding:** NSERC Discovery Grant **Type:** External **Annual:** 20,000 **Total:** 100,000

**Involvement:** Principal Investigator

Contract/Grant: Research Grant Awarded: 2013 Period: 2013 - 2013

Project Title: Analyzing and forecasting sales team performance

Funding: NSERC Engage Grant Type: External Annual: 25,000 Total: 25,000

**Involvement:** Principal Investigator **Collaboration:** Industrial Collaboration with VoltageCRM

Contract/Grant: Research Grant Awarded: 2012 Period: 2013 - 2013

Project Title: Disaster Recovery and Cloud Bursting as a Cloud Service

**Funding:** Mitacs and Industry (FusionPipe) **Type:** External **Annual:** 80,000 **Total:** 80,000 **Involvement:** Principal Investigator **Collaboration:** Funding for a Mitacs Internship Cluster

Contract/Grant: Research Grant Awarded: 2008 Period: 2008 - 2013

**Project Title:** Machine learning for entity-relationship databases **Funding:** NSERC Discovery Grant **Annual:** \$17,000 **Total:** 85,000

**Involvement:** Principal Investigator

Contract/Grant: Research Grant Awarded: 2012 Period: 2012 - 2012

**Project Title:** Recovery As A Cloud Service

**Funding:** NSERC Engage Grant **Type:** External **Annual:** 25,000 **Total:** 25,000 **Involvement:** Principal Investigator **Collaboration:** Collaboration with FusionPipe

Contract/Grant: Research Grant Awarded: 2012 Period: 2012 - 2012

**Project Title:** Field Recognition in Invoices

**Funding:** MITACS Acccelerate Internship **Type:** External **Annual:** 15,000 **Total:** 15,000 **Involvement:** Principal Investigator **Collaboration:** Industry Collaborator: 10sheet. Intern: Sarah

Saghei.

Contract/Grant: Research Grant Awarded: 2011 Period: 2011 - 2011

**Project Title:** Bayes Nets for Social Network Analysis

**Funding:** Nokia (via FAS DEAN) **Annual:** 9,500 **Total:** 9,500

Involvement: Principal Investigator Collaboration: Nokia funding to support undergraduate

projects. Hired 3 senior undergraduates.

**Contract/Grant:** Research Grant **Awarded:** 2011 **Period:** 2011 - 2011

**Project Title:** Machine Learning for Real-time Transaction Analysis

**Funding:** NSERC Engage Grant **Type:** External **Annual:** 25,000 **Total:** 25,000 **Involvement:** Principal Investigator **Collaboration:** Industrial Collaboration with Inetco.

Supported two students: Hassan Khosravi (Ph.D.) and Md Rahman (M.Sc.) **Institution of Co-Investigator(s):** Inetco supports on-line financial transactions

Contract/Grant: Research Grant Awarded: 2010 Period: 2011 - 2011

**Project Title:** Graphical Models for Social Network Analysis

Funding: Nokia (via FAS Dean) Type: External Annual: 3,000 Total: 3,000

**Involvement:** Principal Investigator **Collaboration:** Nokia funding for 4-th year projects.

Administered by Dean of FAS

Contract/Grant: Industrial Internship Awarded: 2010 Period: 2010 - 2010

**Project Title:** Trust-based Recommendation Systems for Films

**Funding:** MITACS **Type:** External **Annual:** 15,000 **Total:** 15000

**Involvement:** Principal Investigator **Collaboration:** Internship with Zeros2Heroes for my M.Sc.

student Bahareh Bina

Contract/Grant: Industrial Internship Awarded: 2008 Period: 2008 - 2009

Project Title: Data Mining for Distributed Database with Encrypted Information

Funding: MITACS Type: External Annual: 15,000 Total: 15,000

Involvement: Principal Investigator Collaboration: Internship with Bits Republic Technologies for

my Ph.D. student Zhiyong Lu

Contract/Grant: Research Grant Awarded: 2004 Period: 2004 - 2007

**Project Title:** The Epistemology of Rational Choice and Its Applications **Funding:** SSHRC **Type:** External **Annual:** \$26000 **Total:** \$79000

**Involvement:** Principal Investigator

Contract/Grant: Research Grant Awarded: 2003 Period: 2003 - 2007

Project Title: A Learning-Theoretic Approach to Discovering Causal Models from Large Datasets

Funding: NSERC Type: External Annual: \$18,000 Total: \$72000

**Involvement:** Principal Investigator

Contract/Grant: Research Grant Awarded: 2001 Period: 2001 - 2003

**Project Title:** The Epistemology of Rational Choice in Social Interactions **Funding:** President's Research Grant **Type:** Internal **Total:** \$10,000

**Involvement:** Principal Investigator

Contract/Grant: NSERC Research Grant Awarded: 1999 Period: 1999 - 2003

Project Title: Automated Inference of Conservation Principles in Particle Physics

Funding: NSERC Type: External Total: \$61,200

**Involvement:** Principal Investigator

Contract/Grant: Fellowship Awarded: 2001 Period: 2001 - 2002

Funding: SFU Endowed Research Fellowship Type: Internal Annual: \$5,000 Total: \$5,000

**Involvement:** Principal Investigator

Contract/Grant: SSHRC Research Grant Awarded: 1999 Period: 1999 - 2002

Project Title: "The Epistemology of Rational Choice in Social Interactions"

Funding: SSHRC Type: External Total: \$40,420

**Involvement:** Principal Investigator

Contract/Grant: Conference Grant Awarded: 2000 Period: 2000 - 2000

**Project Title:** SSHRC Conference Grant with Jeff Pelletier

**Funding:** SSHRC **Type:** External **Total:** \$8,000

**Involvement:** Joint Investigator

Contract/Grant: Travel Grant Awarded: 1998 Period: 1998 - 1998

Project Title: Travel Grant from VP Research - Presentation at LOFT 3 98. Turin, Italy

Funding: University of Alberta Type: Internal Total: \$1,500

Contract/Grant: Research Grant Awarded: 1998 Period: 1998 - 1998

**Project Title:** Presentation at CPA Meeting 98

Funding: Humanities and Fine Arts Research Grant Type: Internal Total: \$1,000

### **Conferences, Workshops and Presentations**

#### Summary, Presentations, total over career

Conference Presentations (without proceedings)	10
Conference Presentations (with proceedings)	26
Invited Presentations	34

Keynote Address	1
Workshops (without proceedings)	2
Workshops (with proceedings)	11
Local Seminars	25
Grand Total	104

### **Invited Presentations, Geographic Distribution**

Region	Locations
USA	Stanford University
	Carnegie Mellon University
	California Institute of Technology
	University of Michigan Ann Arbor
	University of California at San Diego
	University of Washington
Canada	Simon Fraser University
	University of Alberta
	University of British Columbia
	University of Western Ontario
	University of Victoria
	University of Lethbridge
Europe	University of Maastricht, Netherlands
	Paul Sabatier University, Toulouse, France
	University of Konstanz, Germany
	University of Hamburg, Germany
Australasia	University of Tsukuba, Japan
	Japanese Advanced Institute for Science and Technology
	Australian National University
	Australian National Logic Summer School.

### **Invited Lecture Presentations**

Presentations invited by the organizers.

June 2015	University of Alberta, Artificial Intelligence Seminar. What is the Value of an Action in Ice Hockey? Q-learning for the NHL.
June 2014	Workshop on Causal Graph Search. Center for Formal Epistemology, Carnegie Mellon University. "Learning Bayesian Networks for Relational Databases". O. Schulte (2014).
June 2013	Workshop on the Logic of Simplicity. Center for Formal Epistemology, Carnegie Mellon University. "Topological Simplicity and Inductive Inference." O. Schulte (2013).
June 2012	Workshop on Statistical Foundations of Ockham's Razor. Center for Formal Epistemology, Carnegie Mellon University. "Simplicity, Induction, and Scientific Discovery". O. Schulte (2012).
November 2011	University of Alberta Artificial Intelligence Seminar. <i>Learning Bayes Nets for Relational Data</i> . Oliver Schulte (2011).
June 2010	Opening Conference, Center for Formal Epistemology, Carnegie Mellon University. Invited Lectures Only. <i>Causal Modelling for Relational Data</i> . O. Schulte (2010).
February 2008	Seminar, Division of Humanities and Social Sciences, California Institute of Technology. "Three Applications of Means-Ends Epistemology", O.Schulte (2008)

December 2007	Research Seminar, Department of Philosophy, Australian National University, Canberra. "How Particle Physics Cut Nature At Its Joints". O.Schulte.
December 2007	Australian National Logic Summer School. "Pareto-minimal Belief Change". O.Schulte.
August 2007	13th International Congress on Logic, Methodology and the Philosophy of Science, Beijing, China. "How Particle Physics Cut Nature At Its Joints", O. Schulte (2007). <b>Keynote address</b>
May 2007	Departmental Seminar, Carnegie Mellon University, Department of Philosophy. "Learning Bayes Nets Based on Conditional Dependencies", O. Schulte (2007).
June 2006	Seminar in IRIT, Paul Sabatier University, Toulouse, France. "Evolutionary Equilibria in Computer Networks: Specialization and Niche Formation". Oliver Schulte (2006).
June 2006	Seminar, Business School, University of Maastricht, Netherlands. "Pareto-minimal Belief Change". O. Schulte (2006).
May 2006	Colloquium, Philosophy Department, University of Alberta. "How Particle Physics Cuts Nature At Its Joints", O. Schulte (2006).
November 2005	Al Seminar, University of Alberta. "Evolutionary Equilibria in Network Games: Specialization and Clustering". O. Schulte (2005).
October 2005	Seminar in the Center for Statistics and the Social Sciences, University of Washington, Seattle. "Evolutionary Stability in Bayesian Network Games". O. Schulte and P. Berenbrink. (2005)
June 2005	Society for the Advancement of Economic Theory (SAET), Vigo, Spain. "Conditionals, Contractions and the K*3 Axiom". O. Schulte (2005).
May 2005	Conference on the Philosophy of Physics of Western Ontario. "The Evidence for Conservation Laws and Particle Families". O. Schulte(2005).
May 2005	2nd Annual Pacific Northwest Philosophy of Science Conference, University of Washington. "How Particle Physics Cuts Nature At Its Joints". O. Schulte (2005)
June 2004	Philosophy Colloquium, University of Konstanz, Germany. "Die Entdeckung von Erhaltungsgesetzen in der Teilchenphysik". O. Schulte 2004.
March 2004	University of Alberta AI Seminar. "Automated Discovery of Conservation Principles in Particle Physics: Theory and Implementation."
November 2003	University of Victoria, Philosophy Colloquium. "Inferring Conservation Principles in Particle Physics: A Case Study in the Problem of Induction"
November 2001	Department of Urban Planning and Public Policy, University of Tsukuba, Japan. "Common Reasoning About Admissibility"
November 2001	Workshop: Game Theory and Epistemic Logic, University of Tsukuba, Japan. "Minimal Belief Change, Logic Consequence, and Conditionals".
November 2001	Department of Information Science, Japanese Advanced Institute for Science and Technology. "Categorical Axiomatizations of von Neumann-Morgenstern Games", with J. Delgrande.
October 2000	University of Lethbridge "Modelling: Closing the Gap Between Ideal and Real-World Agents". "Computers in Search of the Truth"
2000	University of California at San Diego, Department of Philosophy Colloquium. "Means-Ends Epistemology".

2000	University of Michigan, Ann Arbor, Department of Philosophy Colloquium. "Means-Ends Epistemology".
2000	University of British Columbia, Department of Philosophy Colloquium. "Means-Ends Epistemology".
2000	Simon Fraser University, Department of Philosophy Colloquium. "Means-Ends Epistemology".
1999	Carnegie Mellon University, Department of Philosophy Colloquium. "Reliable and Efficient Inquiry in Particle Physics"
1999	University of Alberta, Department of Philosophy Colloquium. "The Long Run in the Short Run".
1999	University of British Columbia, Seminar Department of Computer Science. "Automated Inference of Conservation Principles in Particle Physics"
1999	Peter Wall Institute for Advanced Studies, University of British Columbia. "Rationality in Science, Particle Physics and Other Games"
July 1996	Stanford Summer School in the Foundations of Game Theory. "Common Reasoning About Admissibility". O. Schulte and C. Bicchieri.

### **Conference Presentations**

Conference participation with papers in proceedings is listed separately in my publication list.

April 2008	Graduate Workshop <i>Canadian AI 2008</i> . "Bayesian Networks for Statistical Relational Learning based on Table Joins", Presentation by H. Khosravi and O. Schulte.
August 2005	Dagstuhl Seminar on "Belief Change in Rational Agents". "Pareto-minimal Theory Change, Conditionals and Contractions". O. Schulte (2005)
May 2003	B.C. Philosophy Conference. "If you think that you think that I would: Backward Induction and Rational Choice"
May 2003	Society for Exact Philosophy. "If You Think That I Think That You Think That I Would: A Solution To Some Problems in Interactive Rationality"
October 2001	Western Canadian Philosophical Association. "Inferring Conservation Principles in Particle Physics: A Case Study in Formal Learning Theory"
May 2001	Society for Exact Philosophy "Necessary and Sufficient Conditions for the Levi and Harper Identities"
1999	Society for Exact Philosophy. "Minimal Theory Change and the Pareto Principle"
1998	Western Canadian Philosophical Association. "Pareto-minimal Theory Change"
1998	Canadian Philosophical Association. "Reliable and Efficient Inquiry"
1994	Carnegie Mellon University, Computing and Philosophy IX. "The Computable Testability of Theories Making Uncomputable Predictions"

### Workshops

July 2009	Graphical Knowledge Representation (GKR), workshop at IJCAI 2009. Join Bayes Nets: A New Type of Bayes net for Relational Data. Presentation by O. Schulte.
July 2009	Learning Structural Knowledge From Observations (STRUCK) Workshop, at IJCAI 2009. Bayes Nets for combining logical and probabilistic structure. Presentation by O. Schulte.

### **Local Seminars**

Local Scillinas	
June 2012	Datamining Seminar, Carnegie Mellon University, School of Computing Science. Modelling Relational Statistics with Bayes Nets. O.Schulte (2012).
November 2011	Computational Logic Seminar. Learning 1st-order Bayes Nets . O. Schulte (2011).
February 2011	Statistics Seminar SFU . A Tractable Pseudo-Likelihood Function for Relational Data. O. Schulte.
November 2010	<i>TAMS Oberseminar</i> , University of Hamburg. A Hybrid Method for Learning Gaussian Bayes Nets. O. Schulte.
June 2010	KOGS Oberseminar , University of Hamburg. Graphical Models for Relational Data . O. Schulte (2010).
February 2009	Game Theory Seminar, UBC. "If you think that I think that you think that I wouldAn Algorithm for Iterated Backward Inference"
October 2008	Seminar, Laboratory for Computational Intelligence, UBC. Join Bayes Net: A New Type of Bayes Net for Relational Data
September 2008	SFU Economics Seminar. "Evolutionary Stability in Network Routing Games".
November 2007	Defining Cognitive Science. 'Automated Scientific Discovery in Particle Physics". O. Schulte (2007)
April 2007	UBC LCI Forum. "Learning Bayes Nets Based on Conditional Dependencies". O. Schulte (2007),
March 2007	UBC Game Theory Seminar. "Evolutionary Equilibria in Computer Networks: Specialization and Niche Formation". O.Schulte and P. Berenbrink (2007).
March 2006	Seminar, Laboratory for Computational Intelligence, UBC. "Automated Search for Conservation Principles and New Particles" O. Schulte (2006).
March 2005	Seminar, Computational Logic Lab, SFU. "Frequent Queries in Logical Query Languages" O. Schulte (2005).
October 2004	SFU Particle Physics Seminar. "Automated Search for Conserved Quantities in Particle Reactions". O. Schulte.
March 2004	UBC Laboratory for Computational Intelligence Seminar. "Learning Conservation Principles". O. Schulte 2004.
April 2003	SFU Economics Seminar. "An Algorithm for Proper Rationalizability"
September 2002	Computational Logic Seminar. "Necessary and Sufficient Conditions for the Harper and Levi Identities"
March 2002	Computational Logic Seminar, Simon Fraser University. "Categorical Axiomatizations of von Neumann-Morgenstern Games", with J. Delgrande.
February 2002	Constraint Satisfaction Group ("ISL Cafe"), Simon Fraser University. "What did John Nash have to say about constraint satisfaction?"
January 2002	Computational Logic Seminar, Simon Fraser University. "A Crash Course in Game Theory", O. Schulte.
2001	Department of Economics Colloquium, SFU. "Common Reasoning about Admissibility"

2001	Computational Logic Group, SFU. "Minimal Belief Change"
2000	Simon Fraser University Computing Science Research Seminar. "Automated Discovery of Conservation Principles in Particle Physics"
1999	University of Alberta, Department of Economics Colloquium. "Common Reasoning About Admissibility"
1998	University of Alberta, Department of Computing Science, Artificial Intelligence Colloquium. "Demonstrably Optimal Principles for Belief Revision"

# Part III - Service

### Summary, Service, since 2000

Senior Administrative Position	1
Conference Organization	2
Hosting External Speakers	5
New Program Development	1
Departmental Committees/Initiatives	22
SFU Committee	2
Main Program Committees	13
Senior Program Committees	3 (2x IJCAI, 1 ICML)
Single-Item Reviews (Journals, Grant proposals,	36
conferences, book manuscripts)	

## **Active Service and Administration at Simon Fraser University**

#### **Senior Administrative Positions**

November 2007 - September 2009 Associate Chair (Research), School of Computing Science

### **Departmental Committees**

September 2014 – May 2015	Committee Member, Faculty Search Committee, for 3 Positions.	
September 2013 - August 2014	Committee Member, Distinguished Lecture Series; CS Colloquium	
September 2012 - August 2013	Committee Member, Distinguished Lecture Series; CS Colloquium	
January 2013 - May 2013	Course Champion for CMPT 320, Learning Outcomes Initiative.	
November 2007 - September 2009	Committee Chair, Capital Resources and Hardware Committee	
September 2008 - May 2009	Committee Member, Tenure and Promotion Committee	
September 2006 - May 2007	Committee Member, Committee for Strengthening the Teaching Mission of the School of Computer Science	
September 2005 - September 2006 Research Mentor, Department of Philosophy		
September 2004 - May 2005	Committee Member CS, Tenure and Promotion Committee (TPC)	
September 2004 - May 2005	Committee Member Philosophy, Tenure and Promotion Committee	
September 2003 - September 2004	Committee Member, Undergraduate Program Commmitee (UPC)	

Oliver Schulte - CV - June 2015

September 2003 - September 2004 Committee Member CS, Undergraduate Admissions and Recruiting Committee (UAR)

October 2002 - September 2004 Director, Computational Logic Lab

August 2001 - September 2004 Committee member, Philosophy Department Graduate Committee

August 2001 - September 2004 Committee member, Steering Committee, Cognitive Science

August 2001 - September 2004 Webmaster, Philosophy Department Web pages

September 2003 - February 2004 Committee Member, Ad hoc Committee for Chair Selection in Computing

Science

October 2001 - September 2003 Committee Member, Library Committee - Computing Science

December 2001 - November 2002 Grant proposal, CFI grant proposal committee - "Data Modelling Group".

Computing Science.

January 2002 - May 2002 Acting Chair, Philosophy Department Graduate Committee

January 2002 - May 2002 Committee Member, Philosophy Department Tenure Committee

**Faculty Committees** 

March 2002 - Current Committee Member, Steering Committee for the Centre for Experimental

Economics and Adaptive Behaviour (CRABE)

**University Committees** 

January 2004 - March 2004 Participant, Workshop on Strategic Directions for SFU

Other Chair of Defense/Exam

April 2013 - April 2013 Chair of M.Sc. Defense, Student: Vivienne Wallace.Supervisor: Bob Hadley.

January 2013 - January 2013 M.Sc. Defense, Student: Ravikiran Vadlapudi: Anoop Sarkar

September 2012 - September 2012 Ph.D. Defense Weilong Yang. Supervisor: Greg Mori.

August 2012 - August 2012 Chair M.Sc. Defense, Student: Judy Yeh. Supervisor: Ke Wang.

April 2011 - April 2011 Chair of M.Sc. Defense, Student: Brendon Guild. Supervisor: Eugenia

Ternovska.

March 2011 - March 2011 Chair of Depth Exam, Majid Razamara. Senior Supervisor: Anoop Sarkar.

November 2009 - November 2009 Ph. D. Defense. Student: Richard Frank. Supervisor: Martin Ester.

**Other Colloquium Organization** 

March 2011 - March 2011

February 2015 – February 2015 Hosted Pedro Domingos (University of Washington), CS Distinguished

Lecture Series.

November 2013 - November 2013 Hosted Karon MacLean (UBC), CS Distinguished Lecture Series

March 2006 - March 2006 Hosted visit by Russ Greiner. Organized 3 departmental seminars with

Greiner, one in Surrey. Epco/Epic Visiting Fellowship.

Chair of M.Sc. Thesis Defense, Norah Alrayes. Supervisor: Wo-shun Luk.

December 2004 - December 2004 Host and Organizer for the visit of Geoffrey Hinton (U of T), CS

Distinguished Lecture Series.

July 2003 - July 2003 Computing Science Seminar, visitor: Valeriy Bulitko.

**Other Interfaculty** 

June 2003 - March 2007 Degree Program Work: Designed and proposed a joint major/honours

program between Computing Science and Philosophy,

Philosophy/Computing Science

#### **Other University-Community Liaison**

January 2004 - January 2004 Participant, President's Research Luncheon

### **Service to the Community At Large**

July 2007 - July 2007	Gave Interview to various media outlets on the "man vs. machine" poker
	match that took place in Vancouver, July 23-24. The match was between
	the U of A's polaris program and two human top players, The media outlets
	were: Interview with The Province, 5 minute appearance on Global TV's
	Decolifort action (Cot India 24)

Breakfast news (Sat July 21)

May 2005 - May 2005 Gave Interview for a Profile on myself in a University of Toronto report for

the MacLean Foundation, University of Toronto

June 2002 - June 2002 Gave Interview, CBC Radio: In Search of B.C. June, Monday 17.

March 2002 - March 2002 Judge of Student Posters/Presentations, ASI Technology Exchange B.C.

2000 - 2001 Committee member (2-member committee), Canadian Philosophical

Association to promote the teaching of philosophy in high school in

Alberta. Designed high school course (grade 10/11) which was approved by

the Edmonton Public School Board

# **Active Service to the Academic Community**

#### **Conference Organization**

August 2013 - May 2015	Coordinator, Organizing Committee, Workshop on New Perspectives in
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Relational Learning. Banff International Research Station. 42 participants.

Acceptance rate 30%. In progress.

March 2000 - October 2006 Co-Chair and Organizer (with Jeff Pelletier), Meeting of the Western

Canadian Philosophical Association

#### **Program Committee**

September 2014-March 2015 Program Committee Member 2x, IJCAI (International Joint Conference on

Artificial Intelligence), and UAI (Uncertainty in Artificial Intelligence)

March 2014 - April 2014 Program Committee Member providing 1 review, BUDA Workshop on Big

Uncertain Data in conjunction with ACM SIGMOD/PODS

February 2014 - April 2014 Program Committee Member providing 9 reviews, AAAI annual conference

(Association for the Advancement of Artificial Intelligence)

January 2013 - April 2013	Member, Senior Program Committee. Provided reviews for 8 papers myself, solicited reviews for another 4, IJCAI (International Joint Conference on Artificial Intelligence)
December 2012 - April 2013	Senior Program Committee Member, IJCAI (International Joint Conference on Artificial Intelligence)
January 2011 - March 2011	Program Committee Member, Canadian Al 2011.
November 2008 - July 2009	Program Committee Member, Logic, Game Theory and Social Choice 6, University of Tsukuba, Japan
February 2008 - March 2008	Member of Program Committee. Reviewed 5 papers, ICML 2008 - International Conference on Machine Learning.
February 2008 - March 2008	Member of Program Committee. Reviewed 3 papers, AAAI 2008 - Annual Meeting of the Association for the Advancement of Artificial Intelligence
February 2006 - March 2006	Member of Senior Program Committee. Made acceptance decisions for 14 papers, International Conference on Machine Learning (ICML)
December 2005 - January 2006	Program Committee Member, FLAIRS (Florida Artificial Intelligence Research Society). Responsible for reviewing 6 papers.
May 2005 - July 2005	Conference on Logic, Methodology and the Philosophy of Science. Committee for selecting key note speakers.
March 2004 - April 2004	Program Committee Member. Reviewed 8 submissions, 20th Conference on <i>Uncertainty in Artifical Intelligence (UAI)</i> .
March 2004 - March 2004	Program committee member for ICML 04. Reviewed 4 papers, International Conference of Machine Learning
April 2002 - April 2002	Program Committee Member; reviewed 7 manuscripts, 18th Conference on <i>Uncertainty in Artificial Intelligence (UAI)</i> .

### Referee

May 2014 - August 2014	Referee for 1 Journal Article, Journal of Quantitative Analysis of Sports (JQAS), an official journal of the American Statistical Association.
December 2014 - April 2014	Referee for 1 Journal Article, Journal of Machine Learning Research.
August 2013 - August 2013	Grant Proposal Reviewer (1 proposal), Mitacs Elevate
January 2012 - February 2012	Referee for 1 Journal Article, International Journal of Information Technology and Decision Making
September 2011 - October 2011	Referee for 1 Journal Article, Journal of Artificial Intelligence Research (JAIR)
June 2011 - June 2011	Referee for 1 paper, Workshop on Logic, Rationality and Interaction (LORI 3).
April 2011 - May 2011	Reviewer for Grant Proposal, Israeli Science Foundation (ISF)
January 2011 - January 2011	Referee for Faculty Teaching Award, Department of Philosophy, University of Alberta
October 2010 - November 2010	Referee for 1 journal article (40 pages), Synthese

April 2010 - April 2010	Reviewer of 1 Mitacs Internship Application, Mathematics of Information Technology and Complex Systems, Federal Network Centre of Excellence.
March 2009 - March 2010	Member of College of Reviewers (COR) for Accelerate Internships, MITACS, Canadian National Internship Program
December 2009 - December 2009	Referee for 1 journal paper, The Algorithms journal.
September 2009 - October 2009	Referee for 1 article, Journal of Philosophical Logic
September 2009 - September 2009	Referee for one submission (40 pages), Handbook for Philosophy of Statistics
June 2009 - June 2009	Referee for 1 journal paper, Artificial Intelligence.
June 2009 - June 2009	Referee for 1 journal article, Games and Economic Behavior
April 2007 - May 2007	Referee for 1 paper, Journal: Logic and Computation.
February 2007 - March 2007	Referee for 1 Manuscript, Journal of Machine Learning Research
May 2006 - June 2006	Action Editor for 1 Manuscript, Computational Intelligence.
January 2006 - January 2006	Referee for 1 conference paper, Canadian Philosophical Association (CPA).
November 2005 - November 2005	Referee for 1 Journal Paper, Journal of Machine Learning Research
March 2005 - August 2005	Action Editor for 1 Manuscript, Computational Intelligence (Journal)
January 2005 - January 2005	Referee for Conference Submissions, Canadian Philosophical Association
January 2005 - January 2005	Referee for Standard Research Grant Proposal, SSHRC
January 2005 - January 2005	Referee for 1 paper, IJCAI 2005 (International Joint Conference on Artificial Intelligence).
January 2004 - January 2004	Referee for 1 Manuscript, Canadian Journal of Philosophy
April 2003 - April 2003	Referee for 1 manuscript, Annals of Mathematics and Artificial Intelligence
February 2003 - February 2003	Referee for Conference Submission (x1), Canadian Philosophical Association
October 2002 - October 2002	Referee for 1 manuscript, Journal of Al Research.
April 2002 - April 2002	Referee for 1 manuscript, 2nd International Workshop on Computational Models of Scientific Reasoning and Applications (II CMSRA)
February 2002 - February 2002	Referee of proposal for standard research grant, SSHRC - Social Sciences and Humanties Research Council
January 2002 - January 2002	Referee for 2 submissions, Canadian Philosophical Association
January 2002 - January 2002	Referee for 1 manuscript, Mathematical Social Sciences Journal
2001 - 2001	Referee : Book Manuscripts, Kluwer Publishers
2001 - 2001	Referee for 1 manuscript, Philosophy of Science journal
2001 - 2001	Referee for 1 submission, International Conference on Machine Learning (ICML)
2001 - 2001	Referee for 1 manuscript, Computational Intelligence journal

# **Membership in the Academic Community**

Computing Research Association (CRA) (2001-Current)

Canadian Philosophical Association (CPA) (1997-Current)

Philosophy of Science Association (PSA) (1996-Current)

American Philosophical Association (APA) (1997-2004)

# Part IV - Teaching

### Summary, Teaching, total over career

Course Preparations	24
Undergraduate Courses Taught	38
Graduate Courses Taught	16

For courses that I have taught more than once, I list the average instructor rating. ("How would you rate this instructor's teaching?"). The rating is on a scale from 0 to 4. Informally, a rating of 3.0 is considered normal within the computer science department.

# **Courses Taught at Simon Fraser University**

Course	Number	Semester Taught	(Typical) Enrollment	Instructor Rating
ndergraduate			Linoillient	Katilig
Artificial Intelligence Survey	CMPT 310	Summer 2011, Fall 2014, Spring 2015	70	3.65
Special Topics in Computing: Multi-relational Learning	CMPT 318	Fall 2006	31	
Social Implications of a Computerized Society	CMPT 320	Spring 2008, Spring 2009	50-80	3.4
Database Systems I	CMPT 354	Spring 2003, Spring 2004, Summer 2011, Spring 2013, Fall 2013, Spring 2014	80	3.4
Special Topics in Artificial Intelligence	CMPT 419	Summer 2005	10	
Epistemology	PHIL 301	Spring 2003, Fall 2003, Fall 2004	35-40	
Risk, Choice and Rationality	PHIL 332	Spring 2002, Fall 2006	35	3.6
Philosophy of Science	PHIL 341	Fall 2004, Fall 2006	25-35	
raduate_				
Machine Learning	CMPT 726	Spring 2011, Fall 2012	30	3.10
Deep Learning	CMPT 880	Spring 2015, Spring 2014	10	3.45
Special Topics in Computer Science: Social Network Analysis	CMPT 880	Summer 2008	7	
Special Topics in Artificial Intelligence: Machine Learning	CMPT 882	Spring 2002, Spring 2004	15-30	3.10
Special Topics in Artificial Intelligence: Game Theory	CMPT 882	Spring 2010	24	

Course	Number	Semester Taught	(Typical) Enrollment	Instructor Rating
Directed Reading	CMPT 894	Fall 2002, Summer 2005, Spring 2009, Fall 2011, Spring 2013	1	
Advanced Epistemology (Directed Studies)	PHIL 802	Spring 2003, Summer 2002	1	
Philosophy of Science	PHIL 804	Fall 2003, Fall 2006	1-7	

# **Teaching at Other Institutions**

Course	Semester Taught	Enrollment
University of Potsdam, Germany		
Inductive Logic Programming	Summer 2004	7
Carnegie Mellon University, USA		
Introduction to Game Theory	Summer 1996	10
Minds, Machines and Knowledge	Summer 1995	30

# **Senior Supervisory Duties**

### Summary, Senior Supervision, total over career

Ph.D.	7
M.Sc.	10
B.Sc. (Capstone, Honors Project)	7

Name	Degree	Project/Thesis Title	Status	Began	Completed
Gholami, Sajjad	M.Sc.	TBD	Active	2015-1	
Khademi, Mahmoud	Ph.D.	TBD	Active	2014-3	
Routley, Kurt	M.Sc.	Statistical Evaluation of Player Ability in Ice Hockey and Soccer	Active	2013-3	2015-1
Riahi, Sarah	Ph.D.	Identifying Important Individuals in Heterogeneous Networks	Active	2012-1	
Qian, Zhensong	Ph.D.	Multiple Link Analysis	Active	2011-1	
Bozorgkhan, Ali	M.Sc.	Matrix Factorization Models for Social Networks	Completed	2011-3	2013-2
Zhu, Yuke	B.Sc.	Selectivity Estimation in Relational Databases. DDP Capstone Project and Work-study Project	Completed	2012-1	2013-1

Name	Degree	Project/Thesis Title	Status	Began	Completed
		Current Position: M.Sc. Candidate, Stanfor	rd University		
Khosravi, Hassan	Ph.D.	Learning Bayes Nets for Relational Data	Completed	2007-2	2012-3
		Current Position: Industrial Research Post Canada, UBC.	doc with Fusion	pipe, Vanco	ouver,
Liang, Jiaxing	B.Sc.	Selectivity Estimation in Relational Databases. DDP Capstone Project, Work-study Project	Completed	2012-1	2012-2
Sara Saghaei	M.Sc.	Annotation Projection for Non-English Named Entity Recognition	Completed	2009-3	2012-2
Lu, Zhiyong	Ph.D.	Discovering Associations With Logically Complex Query Languages	Withdrawn	2006-2	2012-2
Rahman, Md.	M.Sc.	NSERC Engage Project with Inetco Transactions	Completed	2011-2	2012-1
Gao, Tianxiang	B.Sc.	Parameter Estimation for Moralized Markov Logic Networks	Completed	2011-1	2012-1
		Capstone Project DDP program. Work-Stu	dy Program		
Zhou, Mi	B.Sc.	Social Network Analysis with Stratified Bayes Logic Programs	Completed	2011-1	2011-1
		Work-Study Student			
Hu, Jianfeng	B.Sc.	Decision Trees for Markov Logic Networks.	Completed	2010-3	2011-1
		Capstone Project			
Bina, Bahareh	M.Sc.	Link-based Classification	Completed	2008-3	2011-1
		Current position: Software Developer Mic	rosoft Seattle		
Man, Tong	B.Sc.	Parameter Estimation for Markov Logic Networks	Completed	2009-3	2010-1
		Capstone Project for the Dual Degree Prog Seattle, Software Development Engineer i		osition: Mic	crosoft
Xu, Xiaoyuan	B.Sc.	Structure Learning for Markov Logic Networks	Completed	2009-3	2010-1
		Capstone Project for Dual Degree Program Microsoft Seattle	n. Current posit	ion: Develo	per with
Frigo, Gustavo	M.Sc.	A Hybrid Method for Learning Bayes Network structure with Dependency Constraints	Completed	2008-3	2009-2
		Current Position: data warehouse director	with IndoChine	o	
Luo, Wei	Ph.D.	Mind-Change Optimal Learning: Theory and Applications	Completed	2002-3	2007-3
		Current Position: Lecturer, Deakin Univers	ity, Australia		
Oliver Schulte – CV – J	Oliver Schulte – CV – June 2015 Page 19/28				

Name	Degree	Project/Thesis Title	Status	Began	Completed
Aliyar, Maryam	M.Sc.	Implementing Minimax Search in the Situation Calculus	Transferred	2005-1	2007-1
		New supervisor Qianping Gu			
Panagopoulos, Anastasia	M.A.	The Internalism/Externalism Debate in Epistemology	Completed	2003-1	2004-1
		Became Ph.D. student at the University of	Minnesota		
Dragunsky, Cesar	M.Sc.	Automated Document Summarization	Transferred	2001-3	2003-3
Korolev, Alexandre	Ph.D.	The Methodology of Experimental Particle Physics	Transferred	2001-3	2002-2

# **Committee Member and Examiner**

### **Summary, Graduate Committee Member/Examiner**

SFU	30
Outside SFU	2

Name	Degree	Project/Thesis Title	Status	Began	Completed
Supervisory Commi	ttee Mer	nber			
Jahns Gigglberger, Ricardo	M.Sc.	TBD	Active	2013-2	
Zhou, Guang-Tong	Ph.D.	Learning Distance for Image Classification	Active	2011-1	
		Supervisor: Greg Mori			
Kamaliha, Elaheh	M.Sc.	Client-side caching for client-server OLAP systems	Active	2010-1	2013-1
		Supervisor: Wo-Shun Luk.			
Jamali, Mohsen	Ph.D.	Probabilistic Models for Recommendation in Social Networks	Completed	2006-3	2012-3
		Supervisor: Martin Ester			
Rajaraman, Ashok	M.Sc.	Inference of ancestral protein-protein interactions using methods from algebraic statistics	Completed	2010-1	2011-2
		Supervisor: Cedric Chauve			
Kubendranathan, Thusjanthan	M.Sc.	Mining multidimensional distinct patterns	Completed	2009-2	2010-3
		Supervisor: Jian Pei			

Name	Degree	Project/Thesis Title	Status	Began	Completed
Yang, Weilong	M.Sc.	Learning Transferable Distance Functions for Human Action Recognition and Detection	Completed	2008-3	2010-1
		Supervisor: Greg Mori.			
Moser, Flavia	Ph.D.	Data Mining for Feature Vector Networks	Completed	2005-3	2009-3
		Supervisor: Martin Ester			
Fraser, Brian	M.Sc.	STEPS-First: A systematic inference system	Completed	2003-2	2009-1
		Supervisor: Bob Hadley			
Cheng, Christine	M.Sc.	PRM-Based Mining for Association Rules	Completed	2005-1	2007-2
		Senior Supervisor: Martin Ester			
Gao, Bryon	Ph.D.	Hyper-Rectangle-Based Discriminative Data Generalization and Applications in Data Mining	Completed	2003-1	2007-2
		Supervisor: Martin Ester			
Holst, Glendon	Ph.D.	Computational Approaches to Abstraction	Withdrawn	2001-3	2007-1
		Supervisor: Veronica Dahl			
Daphne Liu	M.Sc.	A Consistency-Based System for Belief Set Merging	Completed	2005-1	2006-2
		Supervisor: James Delgrande			
Kwiatkowska, Mila	Ph.D.	Integrating Knowledge-driven and data-driven approaches in the derivation of clinical prediction rules	Completed	2002-3	2006-2
		Supervisor: Stella Atkins			
Hunter, Aaron	Ph.D.	Belief Change in the Presence of Actions and Observations	Completed	2001-3	2006-2
		Supervisor: James Delgrande			
Fouron, Anne	M.Sc.	Sleepy Eyes: A Model for Inferring Excessive Datytime Sleepinoess due to OSAS from Pupillometry Data	Completed	2004-1	2005-3
		Senior Supervisor: Stella Atkins			
Storjohann, Rasmus	M.Sc.	Genescript: Simulation of Neurodevelopment	Completed	2002-2	2004-3
		Supervisor: Bob Hadley. Expected defense:	Spring 03.		
Keall, Cherilyn	M.A.	Are Scientific Statements Epistemically Contingent?	Completed	2001-2	2003-2
		Supervisor: Martin Hahn			

	Name	Degree	Project/Thesis Title	Status	Began	Completed
Exa	Examiner					
	Hajimirsadeghi, Hossein	Ph.D.	Multiple Instance Learning Algorithms.	Active		
			Senior Supervisor: Greg Mori			
	Haffari, Gholamreza	Ph.D.	Machine Learning Approaches to Dealing with Limited Training Data	Completed	2003-3	2009-2
			Senior Supervisor: Anoop Sarkar			
	Iranmanesh, Ehsan	Ph.D.	Computational Voting Theory	Active	2008-3	
			Supervisor: Ramesh.			
	Tasharrofi, Shahab	Ph.D.	Arithmetic and Modularity in Declarative Languages for Knowledge Representation	Completed	2008-2	2014-3
			Supervisor: Eugenia Ternovska			
	Nielsen, Brittany	M.Sc.	Reverse Centrality Queries in Complex Networks	Completed	2008-1	2009-3
			Supervisor: Jian Pei.			
	Hickey, Ross	Ph.D.	Three Essays on Political Economy of Fiscal Federalism	Completed	2003-3	2009-1
			Supervisor: Anke Kessler, Economics SFU			
	Fung, Brian	Ph.D.	Anonymous Data Publishing	Completed	2002-3	2007-1
			Supervisor: Ke Wang			
	Zhang, Carl	M.Sc.	Spatial Interference Reduction for Multi-Robot Systems Using Rational and Team-Based Aggression	Completed	2004-1	2006-2
			Supervisor: Richard Vaughn			
	Kawano, Chiyoko	M.Sc.	Extension of an Executable Formal Model ofto Permit Comprehensive Validation	Completed	2000-2	2006-2
			Supervisor: Uwe Glaesser			
	Zhang, Rocky	M.Sc.	Machine Learning Techniques for Discovering Trading Patterns in Financial Markets	Completed	2002-3	2004-2
			Supervisor: Anoop Sarkar			
	Chen, Leo	M.Sc.	Finding Clusters in Network Activity Data	Completed	2002-3	2004-1
			Supervisor: Ljiljana Trajkovic			
	Fung, Benjamin	M.Sc.	Hierarchical Document Clustering Using Frequent Itemsets	Completed	2002-2	2002-3
			Supervisor: Martin Ester			

# **External Examiner (Outside SFU)**

Name	Degree	Status	Dates	Role
Examiner				
Patrick Caldon Area: Title: Institution: Notes:	Limiting Progra	ew South Wales, S	November 2007 Artificial Intelligence ydney, Australia	External Examiner
Karimi, Kamran Area: Title: Institution: Notes:	Ph.D. Computing Scie Inferring Causa University of Re Supervisor: Hov	lity From Tempora egina	May 2005 I Data	External Examiner

# **Supervision of Research and Highly Qualified Personnel**

### Summary, Highly Qualified Personnel, total since 2000 (excluding senior supervision)

Undergraduate	30
Master's	2
Doctoral	1

September 2014-May 2015	Torres Jin, Nicole Li, Jeffery Zhao. Undergraduate, Work-Study Student <b>Funded by:</b> Financial AiD SFU
August 2014 - October 2014	Full Time, Felix Meyer zu Driehausen, B.Sc, RISE Internship <b>Funded by:</b> DAAD - German Academic Exchange Service
May 2014 - July 2014	Full Time, Puneet Singh, B.Sc, Intern
	Funded by: Mitacs Globalink
	Implement Markov Logic Network with decision trees, plus evaluation.
May 2014 - July 2014	Full Time, Ramakanth Gupta, B.Sc, Intern Funded by: Mitacs Globalink
	Implement Markov Logic Network with decision trees, plus evaluation.
January 2014 - April 2014	Part Time, Cathy XiaoQian Yin, Undergraduate, Research Assistant. <b>Funded by:</b> Volunteer
September 2013 - April 2014	Part Time, Kevin Gao, Undergraduate, Work-Study Student <b>Funded by:</b> Financial AiD SFU
	worked 10 hours/week
September 2013 - April 2014	Part Time, Yajie Zhou, Undergraduate, Work-Study Student <b>Funded by:</b> SFU Financial Aid
	Supervised 10 hours/week.

September 2013 - December 2013	Full Time, Diljot Singh Grewal, B.Sc, Work-Study Student <b>Funded by:</b> Financial Aid SFU
	worked 10 hours/week.
September 2013 - December 2013	Full Time, Seung Woo Chris Cheung, Undergraduate, Work-Study Student <b>Funded by:</b> Financial AID SFU
	Worked 10 hours/week.
May 2013 - September 2013	Full Time, Nicole Li, Undergraduate, Undergraduate Research Assistant <b>Funded by:</b> SFU VPRA USRA
	Bayes nets for relational data
May 2013 - September 2013	Full Time, Sun Yan, Undergraduate, Undergraduate Research Assistant <b>Funded by:</b> SFU VPRA USRA
	Bayes Nets for Relational Data
May 2013 - July 2013	Full Time, Samarth Gupta, B.Sc, Intern Funded by: Mitacs Globalink
	Implemented Moebius transform for learning Bayes net parameters.
January 2013 - May 2013	Part Time, Ting Yuh, B.Sc, Work-Study Student Funded by: Financial Aid SFU
	Assistance With SQL scripts for machine learning in relational databases
October 2012 - May 2013	Part Time, Nicole Li, Undergraduate, Research Assistant
	Supervisor for Dual Degree Capstone Project.
October 2012 - May 2013	Part Time, Yan Sun, Undergraduate, Research Assistant
	Supervisor for Dual Degree Capstone Project.
January 2012 - April 2013	Part Time, Yuke Zhu, B.Sc, Dual Degree Program Student <b>Funded by:</b> Volunteer
	Inference for Bayes Nets for Relational Data.is currently a Master's Student at Stanford University.
May 2012 - August 2012	Full Time, Branden Crawford, B.Sc, VPR Undergraduate Research Award Funded by: Vice-President Research, Simon Fraser University
	SFU version of the NSERC USRA. Discriminative learning for relational data.
May 2011 - August 2012	Part Time, Tianxiang Gao, Undergraduate, Research Assistant <b>Funded by:</b> partially Financial AID SFU, volunteer
	Parameter Learning for Markov Logic Networks.Position: Ph.D. Candidate, University of North Carolina, Chapel Hill
January 2012 - May 2012	Part Time, Jiaxing Liang, Undergraduate, DDP Capstone Project
	Selectivity Estimation in Relational Databases
January 2012 - May 2012	Part Time, Tianqi Jin, Undergraduate, DDP Capstone Project
	Selectivity Estimation in Relational Databases
May 2011 - August 2011	Part Time, Mi Zhou, Undergraduate, Work-Study Student <b>Funded by:</b> Financial Aid SFU
	Parameter Learning in Markov Logic Networks
September 2010 - May 2011	Part Time, Jianfeng Hu, Undergraduate, Research Assistant and DDP Capstone Project <b>Funded by:</b> Volunteer
	Decision Trees for Markov Logic Networks.Position: M.Sc. candidate, Stanford University
October 2011 - January 2011	Part Time, Yi Xiong, B.Sc, Research Assistant <b>Funded by:</b> Volunteer

	Worked on discriminative learning for relational data. Current Position: M.Sc. Candidate Statistics, SFU.
January 2010 - May 2010	Part Time, Xiaoyuan Xu, Undergraduate, DDP Capstone Project
	Structure Learning for Markov Logic Networks. Position: Development Director, Facebook.
September 2009 - May 2010	Part Time, Tong Man, Undergraduate, DDP Capstone Project <b>Funded by:</b> Volunteer
	Parameter Estimation for Markov Logic Networks.Position: Software Development Engineer, Microsoft Seattle
May 2009 - August 2009	Full Time, Gabriel Goh, B.Sc, NSERC Research Award Undergraduate <b>Funded by:</b> NSERC Discovery Grant
	Fast Methods for Nonnegative Matrix Factorization.Position: M.Sc. Candidate, University of British Columbia
January 2009 - August 2009	Full Time, Hassan Khosravi, M.Sc, Research Assistant. <b>Funded by:</b> MocSSY/NSERC
	Thesis Research
May 2008 - August 2008	Full Time, Mark Chua, B.Sc, NSERC Research Award Undergraduate <b>Funded by:</b> NSERC Discovery Grant
	worked on the AAAI General Game Playing Competition
May 2007 - June 2008	Part Time, Gustavo Frigo, B.Sc, Research Assistant Funded by: NSERC
	Research on Hybrid Methods for Learning Bayes Nets
May 2007 - December 2007	Full Time, Hassan Khosravi, M.Sc, Research Assistant Funded by: NSERC
	Multi-relational Bayesian networks
January 2007 - December 2007	Full Time, Maryam Aliyar, B.Sc, Research Assistant/Supervisee <b>Funded by:</b> NSERC
	Implementation of Regression Algorithm for Minimax Search
September 2006 - December 2006	Full Time, Gustavo Frigo, Undergraduate, NSERC Undergraduate Student Research Award <b>Funded by:</b> NSERC
	- implementing Bayes net search graphical user interface
January 2003 - May 2005	Full Time, Wei Lou, M.Sc, Reseach Assistant <b>Funded by:</b> NSERC research grant
	Help with the theoretical and practical aspects of NSERC project
November 2002 - May 2003	Part Time, Anastasia Panagopoulos, B.A, Research Assistant <b>Funded by:</b> SSHRC
May 2002 - September 2002	Part Time, Leo Chen, B.Sc, Research Assistant Funded by: NSERC
	Programming Help with NSERC Project
November 2001 - May 2002	Part Time, Cesar Dragunsky, B.Sc, Research assistant <b>Funded by:</b> NSERC research grant
October 2001 - May 2002	Part Time, Sareh Pouryousefi, Undergraduate, Research Assistant <b>Funded by:</b> SSHRC research grant
September 2001 - December 2001	Full Time, Alexandre Korolev, M.A, Research Assistant <b>Funded by:</b> President's Research Grant
	Automated Scientific Discovery in High Energy Physics

Automated Scientific Discovery in High Energy Physics

### **New Course Preparation and Course Enhancement**

2014	Prepared CMPT 880, a graduate course in Deep Learning. The first deep learning course offered in British Columbia.
2011	Prepared CMPT 310, Survey of Artificial Intelligence, a new course for me.
2011	Prepared CMPT 726, graduate course, Introduction to Machine Learning, a new course for me.
2010	Prepared CMPT 726, Machine Learning, a new graduate course for me, for teaching in 2011.
2007	Prepared CMPT 320, "Social Implications of a Computerized Society", taught in Spring 2008
2006	Prepared a new section on E-commerce for my course on decision and game theory (PHIL 332/CMPT 318).
2002	New Course Preparation: CMPT 354, Database Management Systems. Prepared Lecture Notes and Assignments; set up WebCT website.
2002	New Course Preparation: PHIL 301, Epistemology. Created Custom Courseware with Readings; set up WebCT website.
2001	New Course, CMPT 882, Title: "Machine Learning" - first SFU graduate course on machine learning.
2001	New Course, PHIL 332, Title: "Risk, Choice and Rationality" - prepared custom courseware, selecting readings from various sources; prepared WebCT system of web pages for the course; prepared lecture notes included in courseware.

# **Teaching and Other Professional Development**

2001	Peer consultation (U. Alberta). I took part in a university program that matches junior faculty with senior teachers for consultation.
2011	Peer consultation (SFU, Arthur Liestman). I took part in a departmental program that has a colleague observe a class and provide feedback.

## **Other Teaching Activities**

July 2012 Guest Lecture, CMPT 310 - Introduction to Artificial Intelligence

2008 - 2008

Lecture in CMPT 891, CS Advanced Seminar for Graduate Students

2007 - 2007

Lecture in CMPT 891, CS Advanced Seminar for Graduate Students

2006 - 2006

Lecture in CMPT 891, CS Advanced Seminar for Graduate Students

2005 - 2005

Gave 1 lecture in CMPT 891, the Computing Science Advanced Seminar for Graduate Students.

### 2005 - 2005

Gave 1 2-hour guest lecture in CMPT 310, Al survey.

#### 2004 - 2004

Gave 1 lecture in CMPT 891, the Computing Science Advanced Seminar for Graduate Students.

#### 2003 - 2003

Gave 1 lecture in CMPT 891, the Computing Science Advanced Seminar for Graduate Students.

#### 2002 - 2002

Administered Comprehensive Exams for Ph.D., in the areas of Logic and Political Philosophy, for Alexandre Korolev.