

Amy P. Felty

Curriculum Vitae

School of Electrical Engineering and Computer Science
University of Ottawa
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Employment

- May 2007–. Professor, University of Ottawa, School of Electrical Engineering and Computer Science.
- September 2013–June 2014. Visiting Researcher, Centre de recherche Inria Sophia-Antipolis-Méditerranée, France.
- January–April 2007. Visiting Researcher, McGill University, School of Computer Science.
- January 2000–April 2007. Associate Professor, University of Ottawa, School of Electrical Engineering and Computer Science.
- October 1991–December 1999. Research Scientist, Bell Labs, Lucent Technologies, Software Principles Research Department.
- Spring 1999. Adjunct Professor, Stevens Institute of Technology.
- September 1989–September 1991. Visiting Researcher, INRIA (National Institute for Research in Computer Science and Control), Rocquencourt and Sophia-Antipolis, France.

Education

- Ph.D. in Computer Science. University of Pennsylvania, August 1989. Advisor: Dale Miller.
- M.S.E. in Computer Science. University of Pennsylvania, December 1986. Advisor: Dale Miller.
- B.A. Colgate University, Hamilton, NY, May 1984. Major: Computer Science. Minor: Mathematics.

Honors and Awards

- Rubinoff Award for outstanding dissertation, University of Pennsylvania, May 1990.
- Faculty Nomination for AT&T Foundation Scholarship Program and IBM Research Fellowship, University of Pennsylvania.
- Colgate University: Phi Beta Kappa Honor Society; Charles A. Dana Scholar Award for academic achievement and leadership; First Place, Freshmen Math Prize Exam.

Invited Talks

Invited Speaker at Conferences and Workshops

- ACM SIGPLAN Workshop on Mathematically Structured Functional Programming, Baltimore, Maryland, September 25, 2010.
- ACM SIGPLAN Workshop on Mechanizing Metatheory, Baltimore, Maryland, September 25, 2010.
- Conference of the European Union Types Program. Invited Talk, May 3, 2007.
- Federated Conference on Rewriting, Deduction, and Programming (RDP), Nara Japan. Keynote Lecture of joint meetings of International Conference on Typed Lambda Calculi and Applications (TLCA) and International Conference on Rewriting Techniques and Applications (RTA), April 21, 2005.
- 1997 Mexican Conference on Computer Science, Querétaro City, Mexico. Keynote Lecture in Logic and Computer Science Track, September 13, 1997.

Invited Tutorials

- Conference on Mathematical Foundations of Programming Semantics, Ottawa, Canada. One hour tutorial, May 9, 2010.
- Proofs-as-Programs Paradigm, Summer School, Eugene, OR, USA. Three hours of lecture. June 25 and 27, 2002.
- 1997 Mexican Conference on Computer Science, Querétaro City, Mexico. Six hour tutorial. September 11, 1997.
- Tenth Conference on Automated Deduction, Kaiserslautern, Germany. One hour tutorial. July 24, 1990.

Workshop Talks

- Types for Proofs and Programs, Paris, France, May 12, 2014.
- Workshop on Declassification and Dynamic Security Policies, Dublin, Ireland, June 6, 2007.
- Dagstuhl Seminar on Mobility, Ubiquity, and Security, Dagstuhl, Germany, February 27, 2007.
- Construction and Analysis of Safe, Secure, and Interoperable Smart Cards (CASSIS), Marseille, France, March 11, 2004.
- Dagstuhl Seminar on Deduction and Infinite-State Model Checking, Dagstuhl, Germany, April 24, 2003.
- Annual Meeting of the Association for Symbolic Logic, Las Vegas, NV, USA. Special Session on Logic in Computer Science, June 3, 2002.
- Dagstuhl Seminar, Dependent Type Theory meets Practical Programming, Dagstuhl, Germany, August 20 and 24, 2001.
- Workshop on Proof-Carrying Code, Santa Barbara, CA, USA, June 29, 2000.
- Canadian Mathematical Society 1999 Winter Meeting, Montreal, Quebec, Canada, December 11, 1999.

- Dagstuhl Seminar on Deduction, Dagstuhl, Germany, March 23, 1995.
- Workshop on Proving Properties of Programming Languages, Sophia-Antipolis, France, September 21, 1993.
- Workshop on Formal Methods in Software Engineering: Automated Reasoning, Philadelphia, PA, USA, May 11, 1993.
- Workshop on Logic meets Computing: Specifications, Synthesis and Verification of Software, at INRIA 25th Anniversary Conference on Computer Science and Control, Paris, France, December 9, 1992.
- Metaprogramming Workshop, Bell Labs, Murray Hill, NJ, USA, June 3, 1992.
- Third International Workshop on Extensions to Logic Programming, Bologna, Italy, February 28, 1992.
- Second Annual Esprit Workshop on Logical Frameworks, Edinburgh, Scotland, May 24, 1991.
- Deductive Systems, Mathematisches Forschungsinstitut Oberwolfach, Germany, April 29, 1991.
- Second Workshop on Extensions of Logic Programming, Stockholm, Sweden, January 27, 1991.
- First Annual Esprit Workshop on Logical Frameworks, Sophia-Antipolis, France, May 10, 1990.
- First Workshop on Extensions of Logic Programming, University of Tübingen, Germany, December 9, 1989.
- Workshop on Proof, Cambridge, England, July 14, 1988.
- Metalanguage and Tools for Mechanizing Formal Deductive Theories, Pittsburgh, PA, USA, November 13, 1987.

Colloquia and Seminar Talks

- Inria Saclay, Joint Comete-Parsifal Seminar, December 11, 2013.
- McGill University, Computer Science Colloquium, March 9, 2007.
- McGill University, Logic and Computation Seminars, January 25 & April 20, 2007.
- Clarkson University, Computer Science Colloquium, April 13, 2006.
- University of Montreal, Keynote Talk, First Quebec Programming Languages Seminar, April 26, 2004.
- Wayne State University, Computer Science Seminar, December 11, 2001.
- University of Virginia, “Top Gun” Distinguished Lecture Series in Computer Science, October 8, 2001.
- Cornell University, Programming Languages Seminar, November 12, 1999.
- Colgate University, Science Division Colloquium, February 13, 1998.
- University of Iowa, November 21, 1997.
- INRIA, Sophia-Antipolis, France, November 2, 1995.
- University of Pennsylvania, Logic and Computation Seminar, January 23, 1995.
- Wesleyan University, May 4, 1993.

- Pennsylvania State University, February 25, 1993.
- Technical University of Munich, December 17, 1992.
- University of Cambridge, England, December 15, 1992.
- Carnegie Mellon University, Principles of Programming Seminar, January 10, 1992.
- INRIA, Rocquencourt, France, January 11, 1991.
- LISAN, Sophia-Antipolis, France, Seminar in Mathematics and Computer Science, June 1, 1990.
- IRISA, Rennes, France, February 9, 1990.
- INRIA, Rocquencourt, France, January 26, 1990.
- INRIA, Sophia-Antipolis, France, Seminar in Programming Languages and Semantics, October 12, 1989.
- Carnegie Mellon University, August 25, 1989.
- INRIA, Sophia-Antipolis, France, July 18, 1988.
- University of Edinburgh, July 11, 1988.
- University of Texas at Austin, March 2, 1988.

Conference and Workshop Committees

Program Chair

- Program Co-Chair, 25th International Conference on Automated Deduction (CADE'15), Berlin, Germany, August 2015.
- Program Co-Chair, 9th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP'14), Vienna, Austria, July 2014.
- Program Co-Chair, 3rd International Conference on Interactive Theorem Proving (ITP'12), Princeton, New Jersey, USA, August 2012.
- Program Co-Chair, 4th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP'09), Montréal, Canada, August 2009.
- Program Chair, 7th International Symposium on Principles and Practice of Declarative Programming (PPDP'05), Lisbon, Portugal, July 2005.
- Program Chair, 1st International Workshop on Logical Frameworks and Meta-languages (LFM'99), Paris, France, September 1999.

Program Committee Member

- 7th International Conference on Interactive Theorem Proving (ITP'16), Nancy, France, August 2016.
- 31st International ACM/IEEE Symposium on Logic in Computer Science (LICS'16), New York City, USA, July 2016.
- 4th ACM SIGPLAN Conference on Certified Programs and Proofs (CPP'15), Mumbai, India, January 2015.
- 5th International Conference on Interactive Theorem Proving (ITP'14), Vienna, Austria, July 2014.

- International Joint Conference on Rewriting Techniques and Applications and on Typed Lambda Calculi and Applications (RTA-TLCA'14), Vienna, Austria, July 2014.
- 4th International Conference on Interactive Theorem Proving (ITP'13), Rennes, France, July 2013.
- 22nd International Conference on Automated Reasoning with Analytic Tableaux and Related Methods (TABLEAUX'13), Nancy, France, September 2013.
- 8th Workshop on Logical and Semantic Frameworks with Applications (LSFA'13), Sao Paulo, Brazil, September 2013.
- 20th Workshop on Logic, Language, Information, and Computation (WoLLIC'13), Darmstadt, Germany, August 2013.
- 4th International Conference on Interactive Theorem Proving (ITP'13), Rennes, France, July 2013.
- 2nd International Conference on Certified Programs and Proofs (CPP'12), Kyoto, Japan, December 2012.
- ACM Symposium on Applied Computing, Software Verification and Testing Track (SAC-SVT'12), Riva del Garda (Trento), Italy, March 2012.
- 2nd International Conference on Interactive Theorem Proving (ITP'11), Nijmegen, The Netherlands, August 2011.
- Workshop on Proof eXchange for Theorem Proving (PxTP'11), Wroclaw, Poland, August, 2011.
- Workshop on Proof Search in Axiomatic Theories and Type Theories (PSATTT'11), Wroclaw, Poland, August, 2011.
- 13th International Conference on Principles and Practice of Declarative Programming (PPDP'11), Odense, Denmark, July 2011.
- ACM Symposium on Applied Computing, Software Verification and Testing Track (SAC-SVT'11), TaiChung, Taiwan, March 2011.
- 25th International IEEE Symposium on Logic in Computer Science (LICS'10), Edinburgh, Scotland, July 2010.
- 4th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP'10), Edinburgh, Scotland, July 2010.
- ACM Symposium on Applied Computing, Software Verification and Testing Track (SAC-SVT'09), Waikiki Beach, Hawaii, USA, March 2009.
- 17th EACSL Annual Conference on Computer Science Logic (CSL'08), Bertinoro, Italy, September 2008.
- International Workshop on Security Issues in Concurrency (SecCo'08), Toronto, Canada, August 2008.
- International Workshop on Formal Techniques for Java-like Programs (FTfJP'08), Paphos, Cyprus, July 2008.
- 5th ACM Workshop on Formal Methods in Security Engineering: From Specifications to Code (FMSE'07), George Mason University, USA, November 2007.
- 20th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'07), Kaiserslautern, Germany, September 2007.

- 21st International IEEE Symposium on Logic in Computer Science (LICS'06), Seattle, Washington, USA, August, 2006.
- 3rd International Joint Conference on Automated Reasoning (IJCAR'06), Seattle, Washington, USA, August, 2006.
- International Workshop on Proof-Carrying Code (PCC 2006), Seattle, Washington, USA, August, 2006.
- 3rd International Workshop on MEchanized Reasoning about Languages with variable bINDing (MERLIN'05), Tallinn, Estonia, September, 2005.
- 18th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'05), Oxford, UK, August 2005.
- 20th International Conference on Automated Deduction (CADE'05), Tallinn, Estonia, July 2005.
- 14th International Conference on Compiler Construction (CC'05), Edinburgh, Scotland, April 2005.
- 17th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'04), Park City, UT, USA, September 2004.
- 2nd International Joint Conference on Automated Reasoning (IJCAR'04), Cork, Ireland, July 2004.
- 4th International Workshop on Logical Frameworks and Meta-languages (LFM'04), Cork, Ireland, July 2004.
- 5th International Workshop on Strategies in Automated Deduction (STRATEGIES'04), Cork, Ireland, July 2004.
- 10th International Conference on Logic for Programming Artificial Intelligence and Reasoning (LPAR'03), Almaty, Kazakhstan, September 2003.
- 16th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'03), Rome, Italy, September 2003.
- 2003 ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI'03), San Diego, CA, USA, June 2003.
- 30th ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL'03), January 2003.
- 4th International Conference on Principles and Practice of Declarative Programming (PPDP'02), Pittsburgh, PA, USA, October 2002.
- 3rd International Workshop on Logical Frameworks and Meta-languages (LFM'02), Copenhagen, Denmark, July 2002.
- 1st International Workshop on MEchanized Reasoning about Languages with variable bINDing (MERLIN'01), Siena, Italy, June 2001.
- 1st International Conference on Computational Logic (CL'00), Theory and Extensions stream, London, England, July 2000.
- 2nd International Workshop on Logical Frameworks and Meta-languages (LFM'00), Santa Barbara, CA, USA, June 2000.
- 9th International Conference on Analytic Tableaux and Related Methods (TABLEAUX'00), St. Andrews, Scotland, July 2000.

- 8th International Conference on Analytic Tableaux and Related Methods (TABLEAUX'99), Saratoga Springs, NY, USA, June 1999.
- 11th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'98), Canberra, Australia, September 1998.
- 3rd International Workshop on Higher-Order Algebra (HOA'97), Southampton, UK, September 1997.
- 10th International Conference on Theorem Proving in Higher Order Logics (TPHOLs'97), Murray Hill, NJ, USA, August 1997.
- 12th International IEEE Symposium on Logic in Computer Science (LICS'97), Warsaw, Poland, June 1997.
- 13th International Conference on Automated Deduction (CADE'96), New Brunswick, NJ, USA, July 1996.
- 5th International Workshop on Extensions of Logic Programming (ELP'96), Leipzig, Germany, March 1996.

Conference Organization

- Member, Steering Committee, International Conference on Interactive Theorem Proving (ITP), August 2012–
- Member, Steering Committee, International Workshop on Logical Frameworks and Meta-languages: Theory and Practice (LFMTP), October 2009–
- Member, Committee on Logic in North America, Association for Symbolic Logic (ASL), January 2008–December 2013.
- Member, Steering Committee, International Symposium on Principles and Practice of Declarative Programming (PPDP), July 2005–September 2010.
- International Conference on Automated Deduction (CADE), Trustee and Secretary: May 2004–May 2007, Elected Trustee: October 2007–October 2015.
- Conference Co-Chair, International IEEE Symposium on Logic in Computer Science (LICS'03), Ottawa, Canada, June 2003.
- Organizing Committee Member, International IEEE Symposium on Logic in Computer Science (LICS), 1993–1997 and 2003–2006.
- Workshop Chair, Colloquium on Principles, Logics, and Implementations of High-Level Programming Languages (PLI'00), Montreal, Quebec, Canada, September 2000.
- Organizing Committee Member, 10th International Conference on Theorem Proving in Higher-Order Logics (TPHOLs'97), Murray Hill, NJ, USA, August 1997.
- Conference Chair, 13th International Conference on Automated Deduction (CADE'96), New Brunswick, NJ, USA, July 1996.
- Organizing Committee Member, First International Federated Logic Conference (FLoC'96), New Brunswick, NJ, USA, July 1996.
- Publicity Co-Chair, International IEEE Symposium on Logic in Computer Science (LICS), 1993–1996.

Editorial Duties

- Editorial Board, *Journal of Automated Reasoning*, Springer, 2016–
- Editorial Board, *IfCoLog Journal of Logics and their Applications*, College Publications, 2015–
- Editorial Board, *PeerJ Computer Science*, 2015–
- Special Issue Co-Editor, *Journal of Automated Reasoning*, Springer, Selected Extended Papers of the 25th International Conference on Automated Deuction, 2015–
- Editorial Board, *Journal of Applied Logic*, Elsevier, 2005–
- Special Issue Editor, *Journal of Automated Reasoning*, Kluwer Academic Publishers, Special Issue on Proof-Carrying Code, appeared 2004.
- Special Issue Co-Editor, *Journal of Automated Reasoning*, Kluwer Academic Publishers, Special Issue on Logical Frameworks and Metalanguages, appeared July 2001.
- Newsletter Area Editor, Theorem Proving area, *Association of Logic Programming Newsletter*, January 2001–May 2005.

Other Professional Activities

- Treasurer, ACM Special Interest Group on Logic and Computation (SIGLOG), June 2016–
- Member, Natural Sciences and Engineering Research Council of Canada (NSERC) Computer Science Evaluation Committee, 2010-2013.
- Co-founder, Devera Logic Inc., www.deveralogic.com, 2007–
- Member of Scientific Advisory Board, Mobius (Mobility, Ubiquity, and Security) Project, European Commission Project, September 2005–January 2010.
- Secretary-Treasurer of the Association of Automated Reasoning, May 2004–May 2007.
- Consultant, Communications Security Establishment, Ottawa, Canada, December 2002–May 2003.
- Invited Participant, US Infosec Research Council’s Malicious Code Science and Technology Study Group, to develop a national research agenda to address the malicious code problem, January 2000.
- Member, Industry Advisory Board for Monmouth University’s Software Engineering Department. February 1998–December 1999.
- Coordinator, Bell Labs Technical Women’s Group 1994–1996.
- Co-Coordinator, Bell Labs Seminar on Interactive Theorem Proving, 1991 – 1992.
- National Science Foundation (NSF) Review Panels, Washington, DC, USA. April 2012, April 2004, February 1999, December 1997, and April 1996.
- Granting Agencies Referee: Natural Sciences and Engineering Research Council of Canada (NSERC), National Science Foundation (NSF), European Research Council (ERC).
- Journal Referee: *Communications of the ACM*, *Comptes Rendus de l’Académie des Sciences (France)*, *Computer Journal*, *Computer Languages*, *Formal Methods in System Design*, *Information and Computation*, *Journal of the ACM*, *Journal of Automated Reasoning*, *Journal of Functional Programming*, *Journal of Logic and Computation*, *Journal*

of Logic Programming, Mathematical Structures in Computer Science, New Generation Computing, Theoretical Computer Science, ACM Transactions on Computational Logic, ACM Transactions on Programming Languages and Systems.

- Referee for Numerous Conferences and Workshops in theorem proving, automated deduction, computer-aided verification, logic programming, logical foundations of computer science, and programming languages.

Student and Post-doc Supervision

Post-doc Supervision

- Mohamed Yousri Mahmoud, Ph.D. from Concordia University. December 2015–
- Michael Warren, Ph.D. from Carnegie Mellon University. Co-supervised with Pieter Hofstra and Philip Scott, September 2008–August 2009.
- Joachim de Lataillade, Ph.D. from Université Paris 7. Co-supervised with Pieter Hofstra and Philip Scott, September 2007–August 2008.
- Guillaume Dufay, Ph.D. from Université de Nice Sophia Antipolis. Co-supervised with Stan Matwin, June 2004–August 2005.
- Venanzio Capretta, Ph.D. from Katholieke Universiteit Nijmegen. Co-supervised with Philip Scott and Peter Selinger, November 2003–August 2006.
- Eun-Young Lee, Ph.D. from Princeton University. January–December 2004.
- Laurent Théry, Post-doc at Bell Labs. Ph.D. from Université Paris 7, France. September 1993–September 1994.

Ph.D. Student Supervision

- Chelsea Battell, Ottawa-Carleton Institute for Computer Science, September 2016–
- Abdorrahim Bahrami, Ottawa-Carleton Institute for Computer Science, January 2016–
- Amir Eaman, Ottawa-Carleton Institute for Computer Science, September 2014–
- Michel St.-Martin, Ottawa-Carleton Institute for Computer Science, September 2013–
- Polina Vinogradova, Ottawa-Carleton Institute for Computer Science, *Formalizing Abstract Computability: Turing Categories in Coq*, co-supervised with Philip Scott, May 2012–
- Bahman Sistany, Ottawa-Carleton Institute for Computer Science, *A Certified Core Policy Language*, April 2016.
- Alan Martin, Ottawa-Carleton Institute of Mathematics and Statistics, *Reasoning Using Higher-Order Abstract Syntax in a Higher-Order Logic Proof Environment: Improvements to Hybrid and a Case Study*, November 2010.
- Franck Binar, Ottawa-Carleton Institute for Computer Science, *Abstraction-Based Genetic Programming*, April 2009.

Master's Student Supervision

- Shobhit Bahl, Ottawa-Carleton Institute for Computer Science, master's project on programming with higher-order logic to support formal proofs of programming language meta-theory, May 2016–

- Chelsea Battell, Ottawa-Carleton Institute of Mathematics and Statistics, *The Logic of Hereditary Harrop Formulas as a Specification Logic for Hybrid*, expected August 2016.
- Dongting Zhang, Ottawa-Carleton Institute for Computer Science, master's project on formal verification of imperative programs in Coq, December 2013.
- Ian Sharkey, Ottawa-Carleton Institute for Computer Science, *Probabilistic Proof-Carrying Code*, co-supervised with Philip Scott, March 2012.
- Michel St.-Martin, Ottawa-Carleton Institute of Mathematics and Statistics, *Analysis and Formal Verification of Security Policies*, December 2011.
- Margi Fumtiwala, Ottawa-Carleton Institute for Computer Science, master's project on analysis of policy specification languages, December 2011.
- Riley August, Ottawa-Carleton Institute for Computer Science, *Applying Genetic Programming to Scripted Mobile Robotics*, December 2009.
- Zhiping Duan, Ottawa-Carleton Institute for Computer Science, *Proof Search Algorithms for Detecting Interactions in Telecommunication Features*, August 2003.
- Franck Binard, Ottawa-Carleton Institute for Computer Science, *Proving Properties of Programs Using Automatically Generated Models*, June 2002.
- Jamil Hreich, Ottawa-Carleton Institute for Computer Science, master's project on temporal logic theorem proving and its application to the feature interaction problem, December 2001.

Undergraduate Student Supervision

- Nada Habli, Women Undergraduate Summer Research Award, Faculty of Engineering, Translating Higher-Order Specifications to Coq Libraries Supporting Hybrid Proofs, May–August 2012.

External Ph.D. Thesis Committee Member

- Omar Abahmane, Université d Québec en Outaouais, Canada. *Contrôle de flux d'information basé sur la granularité*, October 2015.
- Tarek Mhamdi, Concordia University, Canada. *Information-Theoretic Analysis using Theorem Proving*, December 2012.
- Andrei Popescu, University of Illinois at Urbana-Champaign, USA. *A Framework for the Specification and Analysis of Systems Featuring Variable Bindings and Concurrent Behavior*, September 2010.
- Perry R. James, Concordia University, Canada. *Enhancements to JML and its Extended Static Checking Technology*, July 2009.
- Shoham Ben-David, University of Waterloo, Canada. *Applications of Description Logic and Causality in Model Checking*, June 2009.
- Jian Xu, McMaster University, Canada. *Mei—a Module Sytem for Mechanized Mathematics Systems*, December 2007.
- Kedar Swadi, Princeton University, USA. *Typed Machine Language*, July 2003.
- Alberto Ciaffaglione, Institut National Polytechnique de Lorraine, France. *Raisonnement certifié sur les nombres réels et les objets en théorie des types co-inductifs*, May 2003.

- Delphine Terrasse, rapporteur, L'École Nationale des Ponts et Chaussées, Paris, France. *Vers un Environnement d'Aide au Développement de Preuves en Sémantique Naturelle*, October 1995.
- Chuck Liang, University of Pennsylvania. *Object-Level Substitution, Unification, and Generalization in Meta-Logic*, September 1995.
- Laurent Théry, examinateur, Université Paris 7, France. *Une Méthode Distribuée de Création d'Interfaces et ses Applications aux Démonstrateurs de Théorèmes*, February 1993.

External Master's Thesis Committee Member

- Renaud Germain, McGill University, *Implementation of a Dependently Typed Functional Programming Language*, December 2009.
- Jacques Le Normand, McGill University, *Generalized Algebraic Datatypes: A Different Approach*, March 2007.

Bell Labs Summer Project Supervision

- Abhik Roychoudhury, Bell Labs Summer Intern, Ph.D. Student from SUNY Stonybrook. June–August 1998.
- Hoa-Chi Wong, Bell Labs Summer Intern, Ph.D. Student from Carnegie Mellon University. June–August 1993.
- Jill Seaman, Bell Labs Summer Intern, Ph.D. Student from Pennsylvania State University. June–August 1992.
- 2 undergraduate students, Bell Labs Summer Program for Minorities and Women, summers 1993 and 1998.

Teaching

Graduate Courses

- CSI 5140 (COMP 5900) Software Foundations, Fall 2016, Fall 2015.
- CSI 5110 (COMP 5707) Principles of Formal Software Development, Fall 2016, Fall 2015, Fall 2014, Fall 2012, Fall 2011, Fall 2010, Fall 2009, Fall 2008, Fall 2007, Fall 2006, Fall 2005, Winter 2005, Fall 2002, Winter 2002, Winter 2001.

Undergraduate Courses

- CSI 4125 Theory of Programming Languages, Winter 2008, Winter 2006, Winter 2005.
- CSI 3104 Introduction to Formal Languages, Winter 2017, Winter 2016, Winter 2015, Winter 2013, Winter 2012, Winter 2003.
- CSI 3504 Introduction aux langages formels, Hiver 2017, Hiver 2016, Hiver 2015, Hiver 2013, Hiver 2003, Hiver 2000.
- CSI 2120 Programming Paradigms, Winter 2011.
- CSI 2520 Paradigmes de programmation, Hiver 2012.

- SEG 2105 Introduction to Software Engineering, Winter 2010, Winter 2009, Fall 2007, Fall 2006.
- ITI 1120 Introduction to Computing I, Winter 2008.
- CSI 1100 Introduction to Computer Science I, Fall 2002, Fall 2001 (3 sections), Fall 2000 (2 sections).

Combined Undergraduate/Graduate Courses

- Foundations of AI Theory with Applications, Stevens Institute of Technology, Hoboken, NJ, USA, Spring 1999.

Research Funding

- Principal Investigator on “Modeling and Analysis of Access-Control Policies (SELinux and/or SMACK),” Mitacs Accelerator Grant, \$30,000, March–November 2016.
- Principal Investigator on “A Higher-Order Abstract Syntax Approach to Reasoning about Programs and Programming Languages” NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grants—Individual, \$43,000 yearly for 5 years, April 2015–March 2020.
- Principal Investigator on “Risk-Based Adaptive Rules Engine for Fraud Detection in Mobile Commerce,” NSERC (Natural Sciences and Engineering Research Council of Canada) Engage Grant, \$25,000, May–October 2012.
- Co-Investigator on “Policy Definition and Analysis Software—Software Development and GUI,” FedDev Ontario Applied Research and Commercialization Initiative, Co-Investigators: Stan Matwin (Co-Principal), Ed Strange (Co-Principal), Bernard Stepien, \$50,000, May–August 2011.
- Co-Principal Investigator on “Access Management and Control Technology,” OTTN (Ontario Technology Transfer Network) Proof of Principle Program, Co-Investigator: Stan Matwin, \$35,000, January–March 2010.
- Principal Investigator on “Machine-Assisted Theorem Proving: Proof Techniques and Applications,” NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grants—Individual, \$35,000 yearly for 6 years, April 2009–March 2015.
- Co-Investigator on “Correct Logic Inc. Market Readiness,” (Ontario Centres of Excellence) Market Readiness Program, Co-Investigator: Stan Matwin (Principal), \$38,000, July–September 2007.
- Co-Investigator on “Enterprise Solutions for Verification of Policy Compliance,” CITO (Communications and Information Technology Ontario) Tech Readiness Program, Co-Investigator: Stan Matwin (Principal), \$25,500, October 2005–January 2006.
- Co-Investigator on “Application-Centric Checkable Enablement of Privacy and Trust,” NSERC (Natural Sciences and Engineering Research Council of Canada) Idea to Innovation (I2I) Grant, Co-Investigator: Stan Matwin (Principal), \$62,500 yearly for 2 years, November 2004–March 2006.
- Principal Investigator on “Proving Safety and Privacy Properties of Software,” NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grants—Individual, \$39,700 yearly for 5 years, April 2004–March 2009.

- Principal Investigator on “Software Correctness and Safety,” CFI (Canada Foundation for Innovation) Infrastructure Operating Fund, \$4,800 yearly for 5 years, April 2004–March 2009.
- Co-Investigator on “Contracts and Conflicts in Electronic Commerce,” ORNEC (Ontario Research Network for Electronic Commerce), Co-Investigators: Stan Matwin (Principal), Gregory Kersten, Luigi Logrippo, \$39,000, January 2004–January 2005.
- Co-Investigator on “Privacy-Oriented Data Mining,” CITO (Communications and Information Technology Ontario) Tech Readiness Program, Co-Investigator: Stan Matwin (Principal), \$25,000, January 2004–April 2004.
- Co-Investigator on “A Requirements-Driven Development of Distributed Applications,” NSERC (Natural Sciences and Engineering Research Council of Canada) Strategic Project, Co-Investigators: Daniel Amyot, Gregor Boehmann (Principal), Luigi Logrippo, Robert Probert, Stéphane Somé, \$180,590 yearly for 3 years, October 2002–September 2005.
- Principal Investigator on “Software Correctness and Safety,” CFI (Canada Foundation for Innovation) New Opportunities Fund, \$200,499 total over four years, January 2002–June 2005.
- Principal Investigator on “A Proof Development Environment for Proof-Carrying Code,” NSERC (Natural Sciences and Engineering Research Council of Canada) Research Grants—Individual, \$28,000 yearly for 4 years, April 2000–March 2004.
- Principal Investigator, CITO (Communications and Information Technology Ontario) Human Resources Development Fund, \$10,000 for one term, January 2000–March 2000.
- Principal Investigator on “An Application of Theorem Proving to Proof-Carrying Code,” University Research Fund, \$10,000, January–December 2000.
- Principal Investigator on “An Application of Theorem Proving to Proof-Carrying Code,” Faculty of Engineering Fund, \$10,000, January – December 2000.
- Principal Investigator on “Lemma Support for Proof-Carrying Code,” SITE Development Fund, \$5,000, January–December 2000.

Academic Service Activities

- Search Committee, Department of Mathematics and Statistics Chair, Winter 2016, Fall 2006, Fall 2001.
- School Teaching Personnel Committee, School of Electrical Engineering and Computer Science, January–June 2003, July 2014–
- School Appointments Committee, School of Electrical Engineering and Computer Science, July 2001–June 2002, January–June 2003, July 2014–
- Coordinator, Computer Science Fourth-Year Undergraduate Project, July 2007–June 2013, July 2014–
- Faculty Teaching Personnel Committee, Faculty of Engineering, July 2010–June 2013.
- Ottawa-Carleton Institute for Computer Science (OCICS) Graduate Admissions Committee, January 2005–December 2006.
- Computer Science Curriculum Committee, January–June 2000, January 2001–June 2003, (Committee Chair, July 2001–June 2003).

- Faculty Curriculum Committee, Faculty of Engineering, July 2001–June 2003.
- University of Ottawa Library Committee, July 2000–June 2003.
- Faculty Council, Faculty of Engineering, January–June 2001.
- Served on Ph.D. thesis committees for 8 Computer Science students.
- Served on Master’s thesis committees for 14 Computer Science students.
- Supervised undergraduate projects for 12 Computer Science students.

Publications

Papers in Refereed Journals and Reviewed Book Chapters

- Amy P. Felty, Alberto Momigliano, and Brigitte Pientka. The Next 700 Challenge Problems for Reasoning with Higher-Order Abstract Syntax Representations: Part 2—A Survey. *Journal of Automated Reasoning*, 55(4):307–372, 2015.
- Amy Felty and Alberto Momigliano. Hybrid: A Definitional Two Level Approach to Reasoning with Higher-Order Abstract Syntax. *Journal of Automated Reasoning*, 48(1):43–105, 2012.
- Amy P. Felty. Tutorial Examples of the Semantic Approach to Foundational Proof-Carrying Code. *Fundamenta Informaticae*, 7(4):303–330, 2007.
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