Alicia M. Grubb

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Education

University of Toronto, Canada — Sep 2009–Aug 2018 (expected)
PhD, Computer Science, The Dynamics of Global Change Collaborative Program
Thesis Title: *Support for Modeling and Reasoning about Requirements Evolution with Changing Goal Models*
Advisor: Prof. Marsha Chechik

University of Toronto, Canada — Sep 2008–Sep 2009
MSc, Computer Science
Thesis Title: *Identifying Barriers to Scientific Credibility and Communication*
Advisor: Prof. Steve M. Easterbrook

University of Waterloo, Canada — Sep 2003–Apr 2008
BSE, Software Engineering, Honours, Co-operative Program, With Distinction

Awards

Huawei Prize ($5,000) - 2017
Bell Graduate Scholarship ($20,000) - 2016, 2017
Best Student Presentation Award at the Consortium for Software Engineering Research Fall Meeting - 2017
School of Graduate Studies Conference Grant to attend RE 2016
SIGSOFT-CAPS Travel Grant to attend ICSE 2015
Kappa Kappa Gamma Foundation Annual Scholarship ($3,000) - 2013
Kappa Kappa Gamma Foundation of Canada Scholarship ($1,000) - 2013
Google Lime Scholarship ($5,000) - 2010
CRA-W Grad Cohort (Travel Award) - 2010, 2009
Grace Hopper Scholarship (Travel Award) - 2009
ENGIE Award for Innovation in Software - 2007
Millennium Excellence Award ($4,000) - 2003
QEII Aiming for the Top Scholarship ($3,500) - 2003

Research Employment

University of Toronto – Department of Computer Science — Sep 2008–Present
Research Assistant
- Developed and validated analysis techniques for reasoning about evolving goal models.
- Investigated the effectiveness of requirements approaches and expressiveness of their notations.
- Supervised undergraduate research and tool building.

Microsoft Research – Human Interactions in Programming — May 2010–Aug 2010
Research Intern
- Researched privacy and awareness issues with social networking in the workplace.
- Conducted and analyzed an empirical study of programmers values.

Teaching Employment

University of Toronto – Faculty of Arts & Science May 2014–Apr 2016
Writing Fellow (Computer Science)
- Instructed teaching assistants on marking, benchmarking, and giving effective feedback.
- Completed two-year study on the impact of student course blogs on student learning.
- Worked with the first-year learning community to emphasize the importance of writing.

University of Toronto – Department of Computer Science Jan 2012–May 2013
Instructor: APS 106: Fundamentals of Computer Programming (2 times)

University of Toronto – Department of Computer Science Sep 2008–Dec 2017
Teaching Assistant
- CSC 300: Computers and Society (4 times)
- CSC 258: Computer Organization (3 times)
- CSC 104: The Why and How of Computing (2 times)
- CSC 490: Capstone Design Project (1 time)
- CSC 302: Engineering Large Software Systems (1 time)
- CSC 209: Software Tools and Systems Programming (1 time)
- CSC 108: Introduction to Computer Programming (1 time)
- PMU 199: Climate Change - Software, Science and Society (1 time)
- First Year Help Centre TA (2 times)
- Mentorship TA (1 time)
- TA Trainer: Trained all first time TAs in the Department (3 times)

Other Employment

University of Toronto – Graduate House Jun 2011–Aug 2013
Residence Advisor
- Responded to resident and facility problems, and mediated roommate conflict.
- Organized social events for residents and coordinated a food share program.

Brock Solutions – Process Business Unit Jun 2008–Aug 2008
Control Systems Designer
- Performed requirements elicitation for manufacturing execution system.
- Advised design team on programmable logic controller interface.

Morgan Stanley – Commodities IT Sep 2007–Dec 2007
Software Design Analyst
- Redesigned crude oil storage model and analysis tool for improved accuracy and readability.
- Maintained commodities trading application for market evaluation of risk.

Brock Solutions – Discrete Business Unit May 2006–Apr 2007
Control Systems Designer
- Instrumental in developing and deploying control system for aerospace manufacturing plant.
- Prototyped C# solution to demonstrate proprietary processor communications.

Ontario Ministry of Health & Long-Term Care – Business Solutions Division Sep 2005–Dec 2005
Database Analyst
- Upgraded data-base system for Public Health laboratory compliance.
- Developed security component to protect patients' privacy.

University of Waterloo – School of Computer Science Jan 2005–Apr 2005
Computer Science Tutor
- Supervised student labs and organized additional help sessions.
- Researched the impacts of examination schedule changes on students.

Sun Microsystems Canada Inc. – Quality Assurance Unit May 2004–Aug 2004
Software Test Specialist
- Developed automated test suite for online learning tool.

Journal Articles

Published

[CV-1] Alicia M. Grubb and Steve M. Easterbrook. On the Lack of Consensus over the Meaning of Openness: An Empirical Study. *PLOS ONE* (**PLOS**), 6(8):e23420 (15 pages), August 2011

[CV-2] Fabio Q. B. da Silva, Marcos Suassuna, A. César C. França, Alicia M. Grubb, Tatiana B. Gouveia, Cleviton V. F. Monteiro, and Igor Ebrahim dos Santos. Replication of Empirical Studies in Software Engineering Research: A Systematic Mapping Study. *Journal of Empirical Software Engineering* (**ESE**), 19(3):501–557, June 2014

In Progress

[CV-3] Alicia M. Grubb and Marsha Chechik. Formal Reasoning for Understanding Goal Models that Evolve over Time. *Requirements Engineering Journal* (**REJ**), 35 pages, Expected completion date: December 2017

Conference Papers

Published

[CV-4] Alicia M. Grubb and Marsha Chechik. Modeling and Reasoning with Changing Intentions: An Experiment. In *Proceedings of the IEEE 25th International Requirements Engineering Conference* (**RE**), pages 164–173, 2017. Acceptance rate: 35.5%

[CV-5] Alicia M Grubb and Marsha Chechik. Looking into the Crystal Ball: Requirements Evolution over Time. In *Proceedings of the IEEE 24th International Requirements Engineering Conference* (**RE**), pages 86–95, 2016. Acceptance rate: 27.8%

[CV-6] Alicia M. Grubb and Andrew Begel. On the Perceived Interdependence and Information Sharing Inhibitions of Enterprise Software Engineers. In *Proceedings of the 2012 ACM Conference on Computer Supported Cooperative Work* (**CSCW**), pages 1337–1346, 2012. Acceptance rate: 39.5%

Other Peer Reviewed Papers

Published

[CV-7] Alicia M. Grubb, Gary Song, and Marsha Chechik. GrowingLeaf: Supporting Requirements Evolution over Time. In *Proceedings of the Ninth International i* Workshop* (**iStar**), pages 31–36, 2016

[CV-8] Tong Li, Alicia M. Grubb, and Jennifer Horkoff. Understanding Challenges and Tradeoffs in iStar Tool Development. In *Proceedings of the Ninth International i* Workshop* (**iStar**), pages 49–54, 2016

[CV-9] Alicia M Grubb. Adding Temporal Intention Dynamics to Goal Modeling: A Position Paper. In *Proceedings of the Seventh International Workshop on Modeling in Software Engineering* (**MiSE**), pages 66–71, 2015

[CV-10] Alicia M. Grubb and Steve. M. Easterbrook. The Road to Farming Software is Paved with Good Intentions. In *Learning from Marginalized Users: Reciprocity in HCI4D* (**HCI4D**), 2012

[CV-11] Alicia M. Grubb and Steve. M. Easterbrook. Identifying Communication Barriers to Scientific Collaboration. *Eos Transactions of the American Geophysical Union* (**AGU**), 90(52):Abstract IN31B–1004, Fall Meeting Supplement, 2009

Talks

Modeling and Reasoning with Changing Intentions: An Overview
- Consortium for Software Engineering Research (**CSER**) Fall Meeting, Markham, Canada, November 2017. **Best Student Presentation Award**

Modeling and Reasoning with Changing Intentions: An Experiment
- IEEE 25th International Requirements Engineering Conference (**RE**), Research Track, Lisbon, Portugal, September 2017

Looking into the Crystal Ball: Requirements Evolution over Time
- IEEE 24th International Requirements Engineering Conference (**RE**), Research Track, Beijing, China, September 2016

GrowingLeaf: Supporting Requirements Evolution over Time
- Ninth International i* Workshop (**iStar**), Beijing, China, September 2016

Adding Temporal Intention Dynamics to Goal Modeling
- Seventh International Workshop on Modeling in Software Engineering (**MiSE**), Florence, Italy, May 2015
- **University of Trento**, Italy, May 2015
- **City University London**, United Kingdom, May 2015

On the Perceived Interdependence and Information Sharing Inhibitions of Enterprise Software Engineers
- 2012 ACM Conference on Computer Supported Cooperative Work (**CSCW**), Research Track, Seattle, USA, February 2012

The Road to Farming Software is Paved with Good Intentions
- Learning from Marginalized Users: Reciprocity in HCI4D (**HCI4D**) Seattle, USA, February 2012

Through the Looking Glass: Perceptions of Scientists
- **University of California, San Francisco**, USA, October 2009

Patents/Scooping vs. Open Research & Licensing
- SciBarCamp Unconference, Palo Alto, USA, July 2009
- SciBarCamp Unconference, Toronto, Canada, May 2009

Posters

Alicia M. Grubb and Marsha Chechik. GrowingLeaf: Modeling and Analysis for Goals with Temporal Dynamics. *Department of Computer Science Research in Action* (**RIA**), 2016

Alicia M. Grubb and Steve. M. Easterbrook. Systems Thinking for Global Changes. *Department of Computer Science Research in Action* (**RIA**), 2012

Alicia M. Grubb and Steve. M. Easterbrook. Identifying Communication Barriers to Scientific Collaboration. *American Geophysical Union Fall Meeting* (**AGU**), 2009

Alicia M. Grubb and Steve. M. Easterbrook. Credibility of Experimental Science. *Grace Hopper Celebration of Women in Computing* (**GHC**), 2009

Tools

GrowingLeaf: Modeling and Analysis for Goals with Temporal Dynamics in iStar 2016
BloomingLeaf: Modeling and Analysis for Goals with Temporal Dynamics in Tropos 2017
Leaf2.0: Teaching and Modeling iStar 2.0 Syntax 2017

Research Supervision

Allen (Hanbin) Chang September 2017–December 2017
CSC494 Computer Science Project Course
Project: *BloomingLeaf Tool Extension and Usability Analysis*

Farhan Samir May 2017–December 2017
CSC494 Computer Science Project Course
Project: *A Case Study to Evaluate Evolving Goal Models*

Navie (Yikhei) Chan January 2017–April 2017
CSC494 Computer Science Project Course
Project: *Leaf2.0 Design and Development*

Gary Song January 2016–April 2016
CSC494 Computer Science Project Course
Project: *Representing Constraints and Complex Dynamics in Goal Models*
- Abstract accepted to Review of Undergraduate Science (**RUCS**) Fall 2016
- Co-authored paper for the Ninth International i* Workshop (**iStar**) 2016

Jake Fear May 2015–August 2015
NSERC Undergraduate Student Research Awards
Project: *Visually Simulating Goal Models over Time*
- Abstract accepted to Review of Undergraduate Science (**RUCS**) Fall 2015

Professional Activities

Reviewer:
- ACM SIGSOFT Symposium on the Foundations of Software Engineering (**FSE**), 1 paper, 2017
- Software and Systems Modeling (**SoSyM**), 1 paper, 2015–2016
- **IEEE Software**, 2 papers, 2011
- 2nd International Workshop on Replication in Empirical Software Engineering Research (**RESER**), 1 paper, 2011
- 1st International Workshop on Replication in Empirical Software Engineering Research (**RESER**), 2 papers, 2010

Student Volunteer:
- ACM/IEEE 18th International Conference on Model Driven Engineering Languages and Systems (**MODELS**), 2015
- IEEE 23rd International Requirements Engineering Conference (**RE**), 2015
- 29th IEEE/ACM International Conference on Automated Software Engineering Program Committee Meeting (**ASE-PC**), 2014
- 2012 ACM Conference on Computer Supported Cooperative Work (**CSCW**), 2012

Panelist:
- 3rd Canadian Undergraduate Computer Science Conference – Women in CS (**CUCSC**), 2017
- 2nd CASCON Workshop on Software Engineering for Science (**CASCON**), 2009

Session Chair:
- Ninth International i* Workshop (**iStar**), 2016

Participant:
- CRA-W Grad Cohort, Bellevue, USA, April 2010
- CRA-W Grad Cohort, San Mateo, USA, March 2009

University Service

Organizer:
- Software Modeling Reading Group, 2016–present
- Pink T-Shirt Day: An Anti-bullying Initiative, 2014–2015
- Software Engineering Lab Coordinator, 2010–2012
- Computer Science Graduate Student Benevolent Society (**Society President**), 2009–2011
- University of Toronto Potential Graduate Student Visit Day, 2009–2011
- Federation Orientation Committee (Software Engineering Co-Chair), 2005

Committee Member:
- Engineering Positive Space Committee, 2013–2015
- Computer Science Faculty Meetings (Student Representative), 2010–2012
- Software Engineering Curriculum Committee, 2006–2008
- Software Engineering Academic Committee, 2006–2008
- Software Engineering Program Board, 2007–2008

Participant:
- Undergraduate Women in Computer Science Club (WiCS Panelist), 2017
- Engineering Instructional Innovation Project (Participant), 2014–2015
- WorldPride Human Rights Conference (Student Volunteer), 2014
- University of Toronto Queer Orientation (Queer Women on Campus Panelist), 2013
- OUTSHINE National GSA Conference (Ambassador), 2013
- ShowCaSe: A Computer Science Fair (Science Fair Judge), 2009–2011
- Imperial Oil Seminar in CS for Young Women (Student Chaperone), 2005

Affiliations

- Professional Engineers Ontario (**PEO**): Engineering Intern (EIT) Program, 2008–2018
- Institute of Electrical and Electronics Engineers (**IEEE**), 2016–2017

Other Activities - Community Service

Zeta Omega Chapter Advisory Board, Kappa Kappa Gamma ($\boldsymbol{K\,K\,\Gamma}$), 2010–2015
- Finance Advisor, 2010–2015
- Chapter Council Advisor, 2010–2013