ABRAM HINDLE

Assistant Professor
Department of Computing Science
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EDUCATION

Ph.D., University of Waterloo, David R. Cheriton School of Computer Science, 2010
Co-supervisors: Prof. Michael W. Godfrey and Prof. Richard C. Holt
Dissertation: *Evidence-based Software Process Recovery*

M.Sc., University of Victoria, Dept. of Computer Science, 2005.
Supervisor: Prof. Daniel M. Germán.
Dissertation: *SCQL: A formal model and a query language for source control repositories*

B.Sc. (Honours), University of Victoria, Faculty of Engineering, Dept. of Computer Science, 2003
Graduated "with distinction".

ACADEMIC AND PROFESSIONAL INTERESTS

Empirical Software Engineering

The focus of my research is the evidence-based study of software development, particularly how software consumes energy and how software maintenance affects software power use and energy consumption. My field of research depends upon statistics, data mining, social network analysis, machine learning, NLP, signal processing, visualization, and software engineering. With respect to software engineering my research focuses on empirical software engineering, mining software repositories, software development processes, software maintenance, and software metrics. Other interests include computer music, music information retrieval, computer vision, programming languages, and computer security.

WORK EXPERIENCE

I have considerable experience in industrial software engineering, with positions including Contract Programmer and Lead Programmer over a period of 7 years. This experience has included: embedded systems, web-based systems, and distributed systems. Also I have significant research and teaching experience as a professor.

Fall 2011 –	Assistant Professor of Computing Science in the Department of Computing Science, at the University of Alberta, in Edmonton, Alberta, Canada.
Spring 2010 – Fall 2011	Visiting Scholar at Microsoft Research, Redmond, USA
Fall 2010 – Spring 2011	Postdoctoral scholar under Professor Premkumar Devanbu and Professor Zhendong Su, focusing on static analysis and mining, University of California: Davis (UC Davis)
Winter 2008 – Spring 2008	Teaching Assistant for CSC 136, *Elementary Algorithm Design and Data Abstraction*, University of Waterloo.
Fall 2005	Teaching Assistant for CSC 125, *Introduction to Programming Principles*, University of Waterloo.
Spring 2004 – Summer 2004	Lab leader and lab instructor and Teaching Assistant for SENG265, *Software Development Methods*, and SENG 480a, *Hypermedia*, University of Victoria.
Summer 2003	Contract programmer for Radar/HVAC in Victoria, BC. Built an embedded system and distributed system for refrigeration monitoring. Gained experience in embedded systems, distributed systems and testing.
April 2002 – August 2002	Lead programmer for M2C Merchant Services in Sidney, BC. Designed and built a distributed touch screen based point of sale system, and payment gateway that could handle credit card and Interac payments. Gained experience in project management and agile software engineering processes.
April 2001 – August 2001	Junior programmer at Baremetal Inc. (http://www.baremetal.com) in Victoria, BC. Built and maintained a web application to register domain names, particularly .ca domain names. Gained experience with eXtreme Programming, pair programming, and automated testing.
June 1998 – September 2000	Lead programmer for Indexdirect operated by Vince Bird in Cobble Hill, BC. Worked on a variety of web-based systems.

PUBLICATIONS

JOURNAL PAPERS

1. "Do topics make sense to managers and developers?" Abram Hindle, Christian Bird, Thomas Zimmermann, and Nachiappan Nagappan. 37 pp. Journal of Empirical Software Engineering. 2014. Role: Primary Author
2. "The Impact of User Choice on Energy Consumption" **Zhang Chenlei**, Abram Hindle, and Daniel M German. 5 pp. IEEE SOFTWARE. 2014. Role: Co-Author/Supervisor
3. "Green Mining: a Methodology of Relating Software Change and Configuration to Power Consumption" Abram Hindle. 36 pp. Journal of Empirical Software Engineering. 2013. Role: Author
4. "Roundtable: What's Next in Software Analytics" Ahmed E Hassan, Abram Hindle, Per Runeson, Martin Shepperd, Prem Devanbu, and Sunghun Kim. 4 pp. IEEE Software. July 2013. Role: Invited Expert. (Invited, not peer reviewed).
5. "Automated Topic Naming Supporting Cross-project Analysis of Software Maintenance Activities" Abram Hindle, Neil A. Ernst, Michael W. Godfrey, John Mylopoulos. 25 pp. Journal of Empirical Software Engineering. May 2012. Role: primary author.
6. "Software Bertillonage Determining the Provenance of Software Development Artifacts" Julius Davies, Daniel M. German, Michael W. Godfrey, Abram Hindle. 40 pp. Journal of Empirical Software Engineering. May 2012. Role: supporting author, writing, case study.
7. "Reading beside the lines: Using indentation to rank revisions by complexity" Abram Hindle, Michael W. Godfrey, Richard C. Holt. 16 pp. Science of Computer Programming, 74(7), May 2009. pp 414–429. Role: primary author.
8. "Visualizing the evolution of software using softChange", by Daniel M. Germán, Abram Hindle. 18 pp. International Journal of Software Engineering and Knowledge Engineering, Vol 16, No.1 , 2006. pp 5–22. NSERC CGS-M. Role: Supporting author, writing.

CONFERENCE PAPERS

1. "The Power of System Call Traces: Predicting the Software Energy Consumption Impact of Changes" **Karan Aggarwal**, **Zhang Chenlei**, **Joshua Campbell**, Abram Hindle, and Eleni Stroulia. 24rd Annual Conference of the Center for Advanced Studies (CASCON). 2014 [Acceptance rate 18/56 or 32.14% for papers in this track] Role: Co-author/Supervisor NSERC Discovery.
2. "Involvement, Contribution and Influence in Github and Stack Overflow" Ali Sajedi Badashian, Afsaneh Esteki, Ameneh Gholipour, Abram Hindle, and Eleni Stroulia. 24rd Annual Conference of the Center for Advanced Studies (CASCON). 2014 [Acceptance rate 18/56 or 32.14% for papers in this track] Role: Co-author/Course-Supervisor NSERC Discovery.
3. "On Improving Green Mining For Energy-Aware Software Analysis" Stephen Romansky, and Abram Hindle. 24rd Annual Conference of the Center for Advanced Studies (CASCON). 2014 [Acceptance rate 18/56 or 32.14% for papers in this track] Role: Co-author/Course-Supervisor NSERC Discovery.

4. "Co-evolution of project documentation and popularity within github" **Karan Aggarwal**, Abram Hindle, and Eleni Stroulia. Mining Software Repositories (MSR). 4pp. 2014. [Acceptance rate 9/19 or 47.37% for papers in this track] Role: Co-author/Supervisor/Course Supervisor NSERC Discovery.
5. "A green miner's dataset: mining the impact of software change on energy consumption." **Zhang Chenlei** and Abram Hindle. Mining Software Repositories: Data Track. 2014. [Acceptance rate 15/22 or 68.18% for papers in this track] Role: Co-author/Supervisor NSERC Discovery.
6. "Syntax Errors Just Aren't Natural: Improving Error Reporting with Language Models" **Joshua Campbell**, Abram Hindle, and J Nelson Amaral. Working Conference on Mining Software Repositories. 10pp. 2014. [Acceptance rate 29/85 or 34.12% for papers in this track] Role: Co-author/Supervisor NSERC Discovery.
7. "CloudOrch: A Portable SoundCard in the Cloud" Abram Hindle. Venue: New Interfaces for Musical Expression (NIME). 4pp. 2014. 2014. [Acceptance rate 26/113 or 23.01% for papers in this track] NSERC Discovery.
8. "GreenMiner: a hardware based mining software repositories software energy consumption framework" Abram Hindle, Alexander Wilson, Kent Rasmussen, Eric Jed Barlow, **Joshua Campbell**, and Stephen Romansky. Mining Software Repositories (MSR). 2014. [Acceptance rate 29/89 or 32.58% for papers in this track]. Role: Project Lead and Author NSERC Discovery.
9. "A Multidimensional Empirical Study on Refactoring" N. Tsantalis, V. Guana, Eleni Stroulia, and Abram Hindle. 23rd Annual Conference of the Center for Advanced Studies.2013 [Acceptance rate 25/70 or 35.71% for papers in this track]. Role: Supervision and Criticism NSERC Discovery.
10. "On the Personality Traits of StackOverflow Users" Blerina Bazelli, Abram Hindle, Eleni Stroulia. *International Conference on Software Maintenance* (ICSM-2013 ERA Track). 4 pp. September 2013. [Acceptance Rate: 30/70 or 42.86% for papers in this track] Role: Class Project Supervisor NSERC Discovery.
11. "Got Issues? Do New Features and Code Improvements Affect Defects?" Daryl Posnett, Abram Hindle, Premkumar Devanbu *Proc. of 2011 Working Conference on Reverse Engineering* (WCRE-11), October 2011, Limerick, Ireland [Acceptance rate 22+27/104 for short and full papers: 48%] Role: Co-author
12. "On the Effectiveness of Simhashing in Clone Detection on Large Scale Software System" Sharif Uddin, Chanchal K. Roy, Kevin A. Schneider and Abram Hindle *Proc. of 2011 Working Conference on Reverse Engineering* (WCRE-11), October 2011, Limerick, Ireland [Acceptance rate 22/104 for full papers: 21%] Role: Initial idea, editting
13. "BugCache for Inspections : Hit or Miss?" Foyzur Rahman, Daryl Posnett, Abram Hindle, Earl Barr, Premkumar Devanbu. *Proceedings of FSE 2011* (FSE-11), Sept 2011, Szeged, Hungary [Acceptance rate 34/203 or 16.7% for papers in this track]. Role: Co-author, editting, some code
14. "On the Naturalness of Software" Abram Hindle, Earl T Barr, Zhendong Su, Premkumar T Devanbu, and Mark Gabel. 11pp. *International Conference on Software Engineering* (ICSE-2012) June 2012, Zurich, Switzerland. IEEE [Acceptance rate 87/408 or 21.32%] Role: Researcher/Author NSF 0964703 and NSF 0613949.
15. "Cohesive and Isolated Development with Branches" Earl T Barr, Christian Bird, Peter C Rigby, Abram Hindle, Daniel M German, and Premkumar T Devanbu. 10pp. *Fundamental Approaches to Software Engineering* March 2012, Tallinn, Estonia. [Acceptance rate 33/134 or 24.63% for papers in this track]. Role: Editing and some experiments.

16. "Green Mining: A Methodology of Relating Software Change to Power Consumption" Abram Hindle. 10pp. *Working Conference on Mining Software Repositories* (MSR-2012), June 2012, Zurich, Switzerland. [Acceptance rate 18/64 or 28.13% for papers in this track]. NSERC Discovery.

17. "Green Mining: Investigating Power Consumption across Versions" Abram Hindle. 4pp. *International Conference on Software Engineering - NIER Track.* (ICSE-NIER 2012), June 2012, Zurich, Switzerland. [Acceptance Rate 26/147 or 17.69% for papers in this track]. NSERC Discovery.

18. "Do the stars align? Multidimensional analysis of Android's Layered Architecture" V. Guana, F. De Pinho Rocha, Abram Hindle, and Eleni Stroulia. *Working Conference on Mining Software Repositories: Challenge Track* (MSR-2012) June 2012, Zurich, Switzerland. IEEE [Acceptance rate 6/17 or 35.29% for this track] Role: course project supervisor/author. NSERC Discovery.

19. "The Build Dependency Perspective of Android's Concrete Architecture" Wei Hu, Dan Han, Abram Hindle, and Kenny Wong. *Working Conference on Mining Software Repositories: Challenge Track* (MSR-2012) June 2012, Zurich, Switzerland. IEEE [Acceptance rate 6/17 or 35.29% for this track] Role: course project supervisor/author. NSERC Discovery.

20. "Relating Requirements to Implementation via Topic Analysis: Do Topics Extracted from Requirements Make Sense to Managers and Developers?" Abram Hindle, Christian Bird, Thomas Zimmermann, and Nachiappan Nagappan. 10pp. *International Conference on Software Maintenance* (ICSM-2012). September 2012, Riva Del Garda, Italy. IEEE. [Acceptance rate 46/181 or 25.41% for this track] Role: Primary Investigator. Microsoft.

21. "SWARMED: Captive Portals, Mobile Devices, and Audience Participation in Multi-User Music Performance" Abram Hindle. 6pp. *New Interfaces for Musical Expression* May 2013, Daejeon and Seoul, Korea Republic. NIME. NSERC Discovery. Role: Author/Researcher

22. "A contextual approach towards more accurate duplicate bug report detection." **Anahita Alipour**, Abram Hindle, and Eleni Stroulia. 10 pp. *Working Conference on Mining Software Repositories* (MSR-2013), May 2013, San Francisco USA. IEEE [Acceptance Rate: 31/81 or 38.27% for this track] Role: supervisor, author. NSERC Discovery.

23. "Deficient documentation detection: a methodology to locate deficient project documentation using topic analysis." **Joshua Campbell**, **Zhang Chenlei**, Zhen Xu, Abram Hindle, and James Miller. 4 pp. *Working Conference on Mining Software Repositories* Challenge Track (MSR-2013) May 2013, San Francisco, USA. IEEE [Acceptance rate 12/30 or 40% for this track] Role: course project from my course. NSERC Discovery.

24. "Understanding Android Fragmentation with Topic Analysis of Vendor-Specific Bugs" Dan Han, **Zhang Chenlei**, Xiachao Fan, Abram Hindle, Kenny Wong, and Eleni Stroulia. 10pp. *Working Conference on Reverse Engineering* (WCRE-2012), October 2012, Kingston, ON, CANADA. IEEE. [Acceptance rate 43/138 or 31.16% for this track] Role: course project from my course. NSERC Discovery.

25. "Automated topic naming to support cross-project analysis of software maintenance activities" Abram Hindle, Neil Ernst, Michael M. Godfrey, John Mylopoulos. *Proc. of 2011 Working Conference on Mining Software Repositories* (MSR-11), May 2011, Waikiki, USA [Acceptance rate 20/61 or 33% for papers in this track].

26. "Software Bertillonage: Finding the provenance of an entity" Julius Davies, Michael Godfrey and Daniel Germán, Abram Hindle. *Proc. of 2011 Working Conference on Mining Software Repositories* (MSR-11), May 2011, Waikiki, USA [Acceptance rate 20/61 or 33% for papers in this track].

27. "A Simpler Model of Software Readability" Daryl Posnett, Abram Hindle and Premkumar Devanbu. *Proc. of 2011 Working Conference on Mining Software Repositories* (MSR-11), May 2011, Waikiki, USA [Acceptance rate 20/61 or 33% for papers in this track].

28. "Multifractal Aspects of Software Development" Abram Hindle, Michael M. Godfrey, Richard C. Holt. *33rd International Conference on Software Engineering ICSE Companion*, ICSE-11 special track on New Ideas and Emerging Results (NIER), May 2011, Waikiki, USA [Acceptance rate 46/196 or 23% for papers in this track].

29. "Software Process Recovery using Recovered Unified Process Views" Abram Hindle, Michael M. Godfrey, Richard C. Holt. *Proc. of 2010 International Conference on Software Maintenance* (ICSM-10), 12–18 September 2010, Timisoara, Romania [Acceptance rate of 36/133 or 26% for papers in this track].

30. "Mining Challenge 2010: FreeBSD, GNOME Desktop and Debian/Ubuntu" Abram Hindle, Israel Herraiz, Emad Shihab, and Zhen Ming Jiang. *Proc. of 2010 Working Conference on Mining Software Repositories* (MSR-10), 2–3 May 2010, Cape Town, South Africa [Unrefereed, as I was the challenge chair].

31. "What's Hot and What's Not: Windowing Developer Topic Analysis", Abram J. Hindle, Michael W. Godfrey, Richard C. Holt. *Proc. of 2009 IEEE Conference on Software Maintenance* (ICSM-09), 20–26 September 2009, Edmonton, Canada, [Acceptance rate 35/162 or 22% for full papers].

32. "Automatic Classification of Large Changes into Maintenance Categories", Abram J. Hindle, Daniel M. Germán, Michael W. Godfrey, and Richard C. Holt. *Proc. of 2009 IEEE Intl. Conference on Program Comprehension* (ICPC-09), 17–19 May 2009, Vancouver, Canada [Acceptance rate 20/74 or 27% for full papers].

33. "Mining Recurrent Activities: Fourier Analysis of Change Events" (short paper), Abram J. Hindle, Michael W. Godfrey, Richard C. Holt. *31st International Conference on Software Engineering ICSE Companion*, ICSE-09 special track on New Ideas and Emerging Results (NIER), 20–22 May 2009, Vancouver, Canada [Acceptance rate 21/118 or 15% for papers in this track].

34. "Reverse Engineering CAPTCHAs", Abram Hindle, Michael W. Godfrey, and Richard C. Holt. *Proc. of the 2008 Working Conference on Reverse Engineering* (WCRE-08), 15–18 October 2008, Antwerp, Belgium [Acceptance rate 20/70 or 29% for full papers].

35. "From Indentation Shapes to Code Structures", by Abram Hindle, Michael W. Godfrey, and Richard C. Holt. *8th IEEE Intl. Working Conference on Source Code Analysis and Manipulation* (SCAM 2008), 28 September 2008, Beijing, China [Acceptance rate: 23/61 or 38% for full papers].

36. "Reading Beside the Lines: Indentation as a Proxy for Complexity Metrics", by Abram Hindle, Michael W. Godfrey, and Richard C. Holt. Proc. of 2008 IEEE Intl. Conference on Program Comprehension (ICPC-08), June 2008, Amsterdam, The Netherlands [Acceptance rate: 38% for full papers].

37. "What do large commits tell us?: A taxonomical study of large commits" by Abram Hindle, Daniel M. Germán, Richard C. Holt. *Proc. of the 2008 Working Conference on Mining Software Repositories* (MSR-08). May 2008, Leipzig, Germany [Acceptance rate: 8/42 or 19% for full papers].

38. "Release Pattern Discovery: A Case Study of Database Systems", by Abram Hindle, Michael W. Godfrey, Richard C. Holt. *Proc. of the 2007 Intl. Conference on Software Maintenance* (ICSM-07), 2–5 October 2007, Paris, France. [Acceptance rate: 41/214 or 21% for full papers].

39. "Measuring Fine-Grained Change in Software: Towards Modification-Aware Change Metrics" by Daniel M. Germán, Abram Hindle. *Proc. IEEE METRICS 2005*, 19–22 September 2005. Como, Italy [Acceptance rate: 39/89 or 44% for full papers].
40. "Visualizing the evolution of software using softChange", by Daniel M. Germán, Abram Hindle, Norman Jordan, *Proc. of Software Engineering Knowledge Engineering* (SEKE), 2004, Banff, Canada [Acceptance rate: 38%].

REFEREED WORKSHOP PAPERS

1. "Green mining: energy consumption of advertisement blocking methods" Kent Rasmussen, Alexandar Wilson, and Abram Hindle. GREENS 2014 Proceedings of the 3rd International Workshop on Green and Sustainable Software. 8pp. 2014.
2. "Determining the provenance of software artifacts" Mike Godfrey, Julius Davis, Daniel Germán and Abram Hindle. *Fifth International Workshop on Software Clones, 2011* May 2011, Waikiki, USA.
3. "Software Process Recovery: Recovering Process From Artifacts" Abram Hindle, Doctoral Symposium of the *17th Working Conference on Reverse Engineering 2010* (WCRE-10), 13–16 October, 2010, Boston, USA.
4. "YARN: Animating Software Evolution", by Abram Hindle, ZhenMing Jiang, Walid Koleilat, Michael W. Godfrey, and Richard C. Holt. *Proc. of 2007 IEEE International Workshop on Visualizing Software for Understanding and Analysis* (VISSOFT-07), June 25–26, 2007, Banff, Alberta. [Acceptance rate: 15/34 or 44% for full papers].
5. "Release Pattern Discovery via Partitioning: Methodology and Case Study", by Abram Hindle, Michael W. Godfrey, Richard C. Holt. *Proc. of 2007 Intl. Workshop on Mining Software Repositories* (MSR-07), May 19–20, 2007. Minneapolis, USA. [Acceptance rate: 15/39 for full papers, or 38%].
6. "SCQL: A formal model and a query language for source control repositories", by Abram Hindle and Daniel M. Germán. *Proc. of 2nd International Workshop on Mining Software Repositories* (MSR 2005), May 2005. St. Louis, USA. [Acceptance rate: 11/38 for full papers, or 29%].

POSTERS

1. "Software Process Recovery with Recovered Unified Process Views", MSR Summer School 2010, 9–12 June, 2010, Kingston, Canada.
2. "Mining Recurrent Activities: Fourier Analysis of Change Events", ICSE-09 special short paper track on New Ideas and Emerging Results (NIER) where accepted papers also had to present a poster. 20–22 May 2009, Vancouver.
3. "Evolutionary Focus", Consortium for Software Engineering Research (CSER) Fall Meeting, October 2008. Markham, Canada.
4. "Reading Beside the Lines: Measuring the Indentation of Changes", Consortium for Software Engineering Research (CSER) Fall Meeting, October 2007. Markham, Canada.

5. “CAPTCHA Breaking: The Visual Adversary”, Graduate Student Research Conference 2007, April 23, 2007. University of Waterloo, Waterloo, Canada.

PRESENTATIONS, LECTURES, AND PERFORMANCES

1. Art’s Birthday, Boreal Acoustic Music Society, Edmonton, Canada, January 2015
2. “On the Naturalness and Unnaturalness of Software”, Hong Kong University of Science and Technology, Hong Kong, December 2014
3. “The trouble with performance analytics”, Dagstuhl Seminar, Dagstuhl, Germany, June 2014
4. “Green Mining: Extracting Energy Consumption Profiles to Answer Questions about Your Applications”, CSER, Edmonton, Canada, May 2014
5. “Generic Map/Reduce in Go”, Edmonton Go User’s Group, Edmonton, Canada, April 2014
6. Musical Performance, Edmonton Sound Art and Noise Festival, April, 2014
7. “Iteration in Go”, Edmonton Go User’s Group, Edmonton, Canada, February 2014
8. “On the Naturalness of Software”, University of Victoria, Victoria, Canada, February 2014
9. Art’s Birthday, Boreal Acoustic Music Society, Edmonton, Canada, January 2014
10. “Go and C”, Edmonton Go User’s Group, Edmonton, Canada, November 2013
11. Computer Vision Improv Musical Performance, Boreal Acoustic Music Society, Edmonton, Canada, November 2013
12. “Events Matter, Experiences Green Mining”, MSR Asia, Kyoto, Japan, October 2013
13. “Green Mining Infrastructure”, MSR Asia, NII Shohan, Shohan Village, Japan, October 2013
14. “Websockets”, Edmonton Javascript User’s Group, Edmonton, Canada, September 2013
15. “Iteration in Python”, Edmonton Python User’s Group, Edmonton, Canada, September 2013
16. “SWARMED: Bubble Wrap”, Edmonton WORKS Festival, Edmonton, Canada, June 2013
17. “Unnatural Code”, Naturalness of Software Colloquium, UC Davis, California, May 2013
18. “Lessons learned from Green Mining” ASDS, Ascona, Switzerland, March 2013
19. “Design Patterns in Ruby”, YEGRB: Edmonton Ruby Users Group, Edmonton, Canada, March 2013
20. “Addressing Mobile Users with SVG, Canvas and JS”, Exchange.JS: Edmonton Javascript User Group, Edmonton, Canada, January 2013
21. “Android Activity Lifecycle” YEGDROID: Edmonton Android Users Group, Edmonton, Canada, April 2013
22. “Intro to OCaml” EFPUG: Edmonton Functional Programming Users Group, Edmonton, Canada, November 2012
23. “SWARMED”, THE WORKS 2012 Festival Edmonton, Alberta, June 2012
24. “CSER Keynote: Software Process Recovery: Picking the Fruit of Empirical Software Engineering”, CSER, Markham, Ontario, Sept 2011

25. “Evidence-based Software Process Recovery”, Microsoft Research, Redmond, November 2010
26. “Web Based Computer Music UIs with Mongrel2 and Harbinger”, Toronto Perl Mongers, August 2010
27. “Android-based Distributed Computer Music”, short talk with Toronto Perl Mongers, June 2010
28. “Recovered Unified Process Views”, UC Davis and the University of Victoria, May 2010
29. “OpenID, Email extracting/parsing and Topic Analysis!”, Kitchener/Waterloo Perl Mongers, January 2010
30. “Mandelbulb: Exploring 3D Fractals”, Kitchener/Waterloo Perl Mongers, November 2009.
31. “Automated Process Extraction”, Seminar on Advanced Tools & Techniques for Software Evolution (SATTOSE) 2009, April 2009. Baie de Somme, France.
32. “Various Short Talks: Twitter, IRC and Perl”, Toronto Perl Mongers, April 2009.
33. “Harbinger: Making your desktop sing with the help of Perl and Lispy Perl”, Toronto Perl Mongers, March 2009.
34. “Harbinger: Sonifying the mundane and mildly entertaining”, Kitchener/Waterloo Perl Mongers, March 2009.
35. “Magick Scheme Image Manipulation Gateway”, Toronto Ruby Users’ Group, March 2009.
36. “Magick-scheme and Lispy Perl”, Toronto LISP Users’ Group, February 2009.
37. “Lispy Perl or Perlish Lisp”, Kitchener/Waterloo Perl Mongers, November 2008.
38. “Hpricot and webscraping”, Toronto Ruby Users’ group, September 2008.
39. Software Engineering Research Group PhD Seminar: “Reading Beside the Lines: Indentation as a Proxy for Complexity Metrics”. May 22, 2008.
40. “The Road to Automated Process Extraction”, Seminar on Advanced Tools & Techniques for Software Evolution (SATTOSE) 2008, February 2008. Waulsort, Belgium.
41. “Hiding in Public: File Management in Unsafe Conditions”, Toronto Perl Mongers, February 2008.
42. “Fast, Cheap, and Under Control: Evaluating Revision Data Reliably”, Dagstuhl Seminar 07491 on Mining Programs and Processes, December 2007. Wadern, Germany.
43. “Release Pattern Discovery via Partitioning: Methodology and Case Study”, Consortium for Software Engineering Research (CSER), Fall Meeting 2007. Markham, Canada.
44. “Perl in Scheme”, Kitchener/Waterloo Perl Mongers, October 2007.
45. Software Engineering Research Group PhD Seminar: “Release Pattern Discovery: A Case Study of Database Systems”. September 20, 2007.
46. Software Engineering Research Group PhD Seminar: “YARN: Animating Software Evolution”. June 13, 2007.
47. Software Engineering Research Group PhD Seminar: “Release Pattern Discovery via Partitioning: Methodology and Case Study”. May 16, 2007.
48. “Beyond Perl”, Kitchener/Waterloo Perl Mongers, October 2006.
49. “Uses of IRC Bots”, Kitchener/Waterloo Perl Mongers, February 2006
50. “Visualizing the evolution of software using softChange”, UVic SENG Colloquium, 2004.

51. “Audio In Hypermedia Lecture”, Dr. Germán’s 2003 and 2004 Hypermedia classes.
52. “OOP in Perl”, to Dr. M. Zastre’s SENG265 class at UVic, 2004.
53. “Game Development in Perl”, UVic Game Developers Club, 2004 .
54. “C and Perl”, “Game Development in Perl”, “Class::Multimethods and WWW::Mechanize”,“OOP in Perl”, “CORBA and Perl”, “Introduction to Recursive Descent Parsers”, Victoria Perl-mongers, 2003 to 2004.

AWARDS & GRANTS

2014	NSERC Engage with BioWare $22000
2013	Microsoft Software Engineering Innovation Foundation Award $25000
2012	MSR Best Paper Award – Mining Software Repositories 2012
2012	Best MSR Mining Challenge Paper – Mining Software Repositories 2012
2012 – 2017	NSERC Discovery Grant $95000
2011	Startup Award $ 100000
2010	Best Presentation Award - Mining Software Archives 2010
2008 – 2010	UW David R. Cheriton Graduate Scholarship, Type 1.
2005 – 2008	UW Graduate President Scholarship.
2005 – 2008	NSERC Post-Graduate Scholarship, PGS-D (Ph.D).
2004 – 2005	NSERC Canadian Graduate Scholarship, CGS-M (Masters).
2003 – 2004	UVic Graduate President Scholarship.
2003	UVic Graduate Fellowship.
2002	UVic President Scholarship for Full Time Students.
2002	3rd Place in the UVic Computer Science Union Programming Competition.
1999	Vancouver Island University entrance scholarship for incoming science students.
1999	BC Provincial Scholarship for excellent achievement on provincial exams.

SERVICE

2015	Reviewed for SANER
2015	Reviewed for EMSE
2014	Reviewed for Science of Computer Programming
2014	Reviewed for EMSE
2014	International Working Conference on Source Code Analysis and Manipulation 2014 (SCAM) Co-Chair
2014	ICSME Tools Co-Chair
2014	IT Oversight Committee
2014	MSR 2014 Program Committee
2014	GREENS 2014 Program Committee
2014	ICSE 2014 Tool Demo Program Committee
2013	Reviewed for JSS
2013	Reviewed for EMSE

2013 Reviewed for TSE
2013 Reviewed for IEEE Software
2013 ICSE 2013 Web Chair
2013 Distinguished Lecture Series Coordinator
2013 ICSM 2013 Program Committee
2013 ICPC 2013 Program Committee
2013 DAPSE 2013 Program Committee
2013 DeSForM 2013 Subreviewer
2012 CASCON 2012 Program Committee
2012 IWESEP 2012 Program Committee
2012 SCAM 2013 Program Committee
2012 WCRE 2012 Program Committee
2013 MSR 2013 Program Committee
2012 Distinguished Lecture Series Coordinator
2012 Reviewed for JSS
2012 Reviewed for EMSE
2012 Reviewed for Trans on SE and Methodology
2012 Reviewed for TSE
2012 ICSM 2012 Program Committee
2012 MSR 2012 Program Committee
2012 ICPC 2012 Tool Demo Track Co-Chair
2012 ICPC 2012 Program Committee
2012 ICSE 2013 Web Chair
2011 ICSE 2013 Web Chair
2011 Reviewed for EMSE
2011 Reviewed for TOSEM
2011 Reviewed for IEEE Software
2011 FSE 2011 Tool Demos Program Committee
2011 WCRE 2011 Program Committee
2011 WCRE 2011 Tool Demos Program Committee
2010 Data Analysis in Software Engineering 2011 Program Committee
2010 ICSM 2011 Program Committee
2010 ICPC 2011 Program Committee
2010 MSR 2011 Program Committee
2010 WCRE 2010 Workshop Co-Chair, organizing workshops around WCRE 2010 with Andrian Marcus, to be held in Boston in October 2010.
2010 MSR 2010 Mining Challenge Chair: for the 2010 Working Conference on Mining Software Repositories, held in Capetown South Africa in May 2010.
2009 MSR 2009 Web Chair: for the 2009 Working Conference on Mining Software Repositories, held in Vancouver in May 2009.
2009 Mining challenge PC member for the 2009 Working Conference on Mining Software Repositories, held in Vancouver in May 2009.

2008	Reviewed for a special issue of IEEE Software magazine on Mining Software Repositories.
2004 – 2010	Reviewed for various conferences and journals, including IEEE Intl. Conference on Software Maintenance (ICSM), IEEE Intl. Conference on Program Comprehension (ICPC), IEEE Working Conference on Source Code Analysis and Manipulation (SCAM), Intl. Working Conference on Mining Software Repositories (MSR), Empirical Software Engineering, Transactions on Software Engineering, and for the journal/magazine IEEE Software.
2003 – 2009	Have given talks to Kitchener Waterloo Perl Mongers, the Toronto Ruby Users Group, the Toronto LISP users group and the Toronto Perl Mongers.
2008	Linux Tutorial for a Grade 11 Computer Science Class, Victoria Park Collegiate, Toronto, June 2008.
2006 – 2007	Volunteer for UW Graduate Student Research Conference (GSRC)
2004	Volunteer at CFUV UVIC Campus Radio Station.
2004	Student Volunteer at OOPSLA 2004 in Vancouver.
2004	Computer Science Course Sys. Admin. Held two IBM CodeRulers coding competitions and two Code Masters coding competition.
2003	Acted as Computer Science Course Union President, organized events, and appointed people to committees, maintained website.
2002	Acted as Computer Science Course Union SysAdmin, organized events, and maintained website.
1998	Art of BBSing article written for Datalink Magazine, Duncan B.C.

PROFESSIONAL MEMBERSHIP

- Association for Computing Machinery Member, 2015
- IEEE Society Member, 2004 – 2015
- Boreal Electroacoustic Music Society, 2013 –
- American Mathematical Society, 2008 – 2009

SUPERVISION

- Joshua Campbell – PhD in Progress
- Candy Pang – PhD in Progress
- Shaiful Chowdhury – PhD in Progress
- Karan Aggarwal – Masters in Progress
- Gregory Burlet – Masters in Progress
- Anahita Alipour – Masters
- Chenlei Zhang – Masters

TEACHING

2015	CMPUT 410	Web Services
2015	CMPUT 301	Intro to SE Winter
2014	CMPUT 410	Web Services
2014	CMPUT 301	Intro to SE Winter and Fall
2013	CMPUT 660	Topics in MSR and the Cloud
2013	CMPUT 664	Topics in Mining Software Repositories
2013	CMPUT 301	Intro to SE Winter and Fall
2012	CMPUT 301	Intro to SE Winter and Fall
2012	CMPUT 664	Topics in Mining Software Repositories

INTERESTS AND HOBBIES

Programming and programming languages are a particular passion of mine. I have been an active member of Perl Mongers in Victoria, Waterloo, and Toronto. I also participate in Toronto Ruby Users Group and Toronto LISP Users Group. I like to learn new languages, concepts, and enjoy writing serious software in languages like OCaml, Haskell, Common LISP, Perl, and Ruby.

Computer music — I have performed at the Victoria Noise Festival multiple times. I also produce computer noise music with my own software and sometimes hardware. In fact much of my musical code ends up in my research code (signal processing). I have performed many live shows primarily in Victoria from 2002 to 2005, I also have given demos to Perl monger's groups.