
ABRAM HINDLE

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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.

WORK EXPERIENCE

I have significant research and teaching experience as a professor, post-doc, and graduate student. I also have considerable experience in industrial software engineering, in roles such as contract programmer and lead programmer working on embedded systems, web-based systems, and distributed systems.

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| Fall 2011 – | Assistant Professor of Computing Science in the Department of Computing Science at the University of Alberta, 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 mining software repositories and natural language processing applied to source code, University of California: Davis (UC Davis), Davis, USA. |
| Winter 2008 – Spring 2008 | Teaching Assistant for CSC 136, <i>Elementary Algorithm Design and Data Abstraction</i> , University of Waterloo, Waterloo, Canada. |
| Fall 2005 | Teaching Assistant for CSC 125, <i>Introduction to Programming Principles</i> , University of Waterloo, Waterloo, Canada. |
| Spring 2004 – Summer 2004 | Lab leader and lab instructor and Teaching Assistant for SENG265, <i>Software Development Methods</i> , and SENG 480a, <i>Hypermedia</i> , University of Victoria, Victoria, Canada. |
| Summer 2003 | Contract programmer for Radar/HVAC, developed embedded and distributed systems for refrigeration monitoring, Victoria, Canada. |
| April 2002 – August 2002 | Lead programmer for M2C Merchant Services, Sidney, Canada. |
| April 2001 – August 2001 | Junior programmer at Baremetal Inc., building domain-name registration software, Victoria, Canada. |
| June 1998 – September 2000 | Lead programmer for Indexdirect (Vince Bird), developed web-based systems, Cobble Hill, Canada. |

PUBLICATIONS

Journal papers, conference papers, workshop papers, and posters are documented below. Highly qualified personnel including masters, PhD, and undergraduate research assistant students who I supervised directly are highlighted in **bold-face**. Authors who were students at the time of writing the paper if I was already faculty at the time are under-lined. The “Role:” heading indicates my role in the research and is followed by the source of funding for that research.

JOURNAL PAPERS

- J1** “On the Naturalness of Software”, Abram Hindle, Earl T. Barr, Zhendong Su, Premkumar T. Devanbu, and Mark Gabel. *Communications of the ACM: Invited Research Highlights (CACM)*, 2016. 11pp. Invited re-print, not peer reviewed. Role: Researcher / co-author. NSF 0964703 and NSF 0613949.
- J2** “A contextual approach towards more accurate duplicate bug report detection and ranking”, Abram Hindle, **Anahita Alipour**, Eleni Stroulia. *Empirical Software Engineering* 21(2), 2016. 42pp. Role: Primary Supervisor. NSERC Discovery.
- J3** “Leaders of Tomorrow on the Future of Software Engineering: A Roundtable”, Felienne Hermans, Janet Siegmund, Thomas Fritz, Gabriele Bavota, Meiyappan Nagappan, Abram Hindle, Yasutaka Kamei, Ali Mesbah, Bram Adams. *IEEE Software* 33(2), 2016. 5pp. Invited, not peer reviewed. Role: Invited Opinion. NSERC Discovery.
- J4** “What do programmers know about the energy consumption of software?”, **Candy Pang**, Abram Hindle, Bram Adams, Ahmed E. Hassan. *IEEE Software*, 2015. 6pp. Role: Co-author / supervisor. NSERC Discovery.
- J5** “Do topics make sense to managers and developers?”, Abram Hindle, Christian Bird, Thomas Zimmermann, and Nachiappan Nagappan. *Journal of Empirical Software Engineering*, 2014. 37pp. Role: Primary Author. Microsoft Research.
- J6** “The Impact of User Choice on Energy Consumption”, **Zhang Chenlei**, Abram Hindle, and Daniel M. German. *IEEE Software*, 2014. 5pp. Role: Co-author / supervisor. NSERC Discovery.
- J7** “Green Mining: a Methodology of Relating Software Change and Configuration to Power Consumption”, Abram Hindle. *Journal of Empirical Software Engineering*, 2013. 36pp. Role: Author. NSERC Discovery.
- J8** “Roundtable: What’s Next in Software Analytics”, Ahmed E Hassan, Abram Hindle, Per Runeson, Martin Shepperd, Prem Devanbu, and Sunghun Kim. *IEEE Software*, 2013. 4pp. Invited, not peer reviewed. Role: Invited Opinion.
- J9** “Automated Topic Naming Supporting Cross-project Analysis of Software Maintenance Activities”, Abram Hindle, Neil A. Ernst, Michael W. Godfrey, John Mylopoulos. *Journal of Empirical Software Engineering*, 2012. 25pp. Role: Primary author.
- J10** “Software Bertillonage Determining the Provenance of Software Development Artifacts”, Julius Davies, Daniel M. German, Michael W. Godfrey, Abram Hindle. *Journal of Empirical Software Engineering*, May 2012. 40pp. Role: Supporting author, writing, case study.

- J11** “Reading beside the lines: Using indentation to rank revisions by complexity”, Abram Hindle, Michael W. Godfrey, Richard C. Holt. *Science of Computer Programming* 74(7), 2009. 16 pp. Role: Primary author. NSERC PGS-D.
- J12** “Visualizing the evolution of software using softChange”, by Daniel M. Germán, Abram Hindle. *International Journal of Software Engineering and Knowledge Engineering*, Vol 16, No.1 , 2006. 17pp. Role: Supporting author, writing. NSERC CGS-M.

CONFERENCE PAPERS

- C1** “Energy Profiles of Java Collections Classes”, Samir Hasan, Zachary King, Munawar Hafiz, Mohammed Sayagh, Bram Adams, Abram Hindle. *International Conference on Software Engineering (ICSE 2016)*, 2016. 12pp. [Acceptance rate 101/530 or 19% for papers in this track] **ACM SIGSOFT Distinguished Paper Award**. Role: Co-author / infrastructure. NSERC Discovery.
- C2** “Hacking NIMES”, Abram Hindle. *New Interfaces for Musical Expression (NIME 2016)*, 2016. 6pp. Role: Author. NSERC Discovery.
- C3** “GreenOracle: Estimating Software Energy Consumption with Energy Measurement Corpora”, **Shaiful Chowdhury** and Abram Hindle. *International Working Conference on Mining Software Repositories (MSR 2016)*, 2016. 11pp. [Acceptance rate 36/103 or 35% for papers in this track] Role: Co-author / supervisor. NSERC Discovery.
- C4** “The Unreasonable Effectiveness of Traditional Information Retrieval in Crash Report Deduplication”, **Joshua Charles Campbell**, **Eddie Antonio Santos** and Abram Hindle. *International Working Conference on Mining Software Repositories (MSR 2016)*, 2016. 11pp. [Acceptance rate 36/103 or 35% for papers in this track] Role: Co-author / supervisor. NSERC Discovery and MITACS Accelerate.
- C5** “Characterizing Energy-Aware Software Projects: Are They Different?” **Shaiful Chowdhury** and Abram Hindle. *International Working Conference on Mining Software Repositories (MSR 2016)*, 2016. 4pp. [Acceptance rate 10/24 or 42% for papers in this track] Role: Co-author / supervisor. NSERC Discovery.
- C6** “Judging a commit by its cover: Correlating commit message entropy with build status on Travis-CI”, **Eddie Antonio Santos** and Abram Hindle. *International Working Conference on Mining Software Repositories Challenge Track (MSR 2016)*, 2016. 4pp. IEEE. **Mining Challenge Award**. [Acceptance rate 10/24 or 42% for papers in this track] Role: Class Project / co-author. NSERC Discovery.
- C7** “Green Software Engineering: The Curse of Methodology”, Abram Hindle. *23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2016) FOSE Track: Leaders of Tomorrow: Future Of Software Engineering* , 2016. 10pp. Invited but peer-reviewed. Role: Author. NSERC Discovery.
- C8** “Client-side Energy Efficiency of HTTP/2 for Web and Mobile App Developers”, **Shaiful Chowdhury**, **Varun Sapra** and Abram Hindle. *23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER 2016)*, 2016. 11pp. [Acceptance rate 52/140 or 37% for papers in this track] Role: Co-author / supervisor. NSERC Discovery.

- C9** “Crowdsourced Bug Triaging: Leveraging Q&A Platforms for Bug Assignment”, Ali Sajedi Badashian, Abram Hindle, Eleni Stroulia. *International Conference on Fundamental Approaches to Software Engineering* (FASE 2016), 2016. 17pp. [Acceptance rate 27% for papers in this track] Role: Co-author. NSERC Discovery.
- C10** “A system-call based model of software energy consumption without hardware instrumentation”, **Shaiful Alam Chowdhury**, Luke N. Kumar, Md. Toukir Imam, Mohomed Shazan Mohomed Jabbar, **Varun Sapra**, **Karan Aggarwal**, Abram Hindle, Russell Greiner. *Sixth International Green and Sustainable Computing Conference* (IGSC 2015), 2015. 6pp. [Acceptance rate 24/67 or 36% for papers in this track] Role: Co-author / supervisor. NSERC Discovery.
- C11** “Hadoop branching: Architectural impacts on energy and performance”, Ivanilton Polato, Denilson Barbosa, Abram Hindle, Fabio Kon *Sixth International Green and Sustainable Computing Conference* WIP track (IGSC 2015), 2015. 4pp. [Acceptance rate 33/67 or 59% for papers in this track] Role: Co-author. NSERC Discovery.
- C12** “Crowdsourced bug triaging”, Ali Sajedi Badashian, Abram Hindle, Eleni Stroulia. *International Conference on Software Maintenance and Evolution* ERA-Track (ICSME-ERA 2015), 2015. 4pp. Role: Co-author. NSERC Discovery.
- C13** “GreenAdvisor: A Tool for Analyzing the Impact of Software Evolution on Energy Consumption”, **Karan Aggarwal**, Abram Hindle and Eleni Stroulia. *International Conference on Software Maintenance and Evolution* (ICSME 2015), 2015. 10pp. [Acceptance rate 32/148 or 22% for papers in this track] Role: Co-author / supervisor. NSERC Discovery.
- C14** “Orchestrating Your Cloud Orchestra”, Abram Hindle. *New Interfaces for Musical Expression* (NIME 2015), 2015. 4pp. Role: Author. NSERC Discovery.
- C15** “An Empirical Study of End-user Programmers in the Computer Music Community”, **Gregory Burlet**, Abram Hindle. *Working Conference on Mining Software Repositories* (MSR 2015), 2015. 11pp. 2015. [Acceptance rate 32/106 or 30% for papers in this track] Role: Co-author / supervisor. NSERC Discovery.
- C16** “Mining StackOverflow to Filter out Off-topic IRC Discussion”, **Shaiful Alam Chowdhury** and Abram Hindle. *International Working Conference on Mining Software Repositories* Challenge Track (MSR 2015), 2015. 4pp. IEEE. **Mining challenge award** [Acceptance rate 14/21 or 66% papers in this track] Role: Co-author / supervisor. NSERC Discovery.
- C17** “Detecting duplicate bug reports with software engineering domain knowledge”, **Karan Aggarwal**, Tanner Rutgers, Finbarr Timbers, Abram Hindle, Russ Greiner, Eleni Stroulia. *22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering* (SANER 2015), 2015. 10pp. [Acceptance rate 46/144 or 32% for papers in this track] Role: Co-author / supervisor. NSERC Discovery.
- C18** “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), 2014. [Acceptance rate 18/56 or 32.14% for papers in this track] Role: Co-author / supervisor. NSERC Discovery.
- C19** “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), 2014. [Acceptance rate 18/56 or 32.14% for papers in this track] Role: Co-author / course project. NSERC Discovery.

- C20** “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)*, 2014. 10pp. [Acceptance rate 18/56 or 32.14% for papers in this track] Role: Co-author / course project. NSERC Discovery.
- C21** “Co-evolution of project documentation and popularity within github”, **Karan Aggarwal**, Abram Hindle, and Eleni Stroulia. *International Working Conference on Mining Software Repositories Challenge Track (MSR 2014)*, 2014. 4pp. [Acceptance rate 9/19 or 47.37% for papers in this track] Role: Co-author / supervisor / course project. NSERC Discovery.
- C22** “A green miner’s dataset: mining the impact of software change on energy consumption”, **Zhang Chenlei** and Abram Hindle. *International Working Conference on Mining Software Data Track (MSR 2014)*, 2014. 4pp. [Acceptance rate 15/22 or 68.18% for papers in this track] Role: Co-author / supervisor. NSERC Discovery.
- C23** “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 (MSR 2014)*, 2014. 10pp. [Acceptance rate 29/85 or 34.12% for papers in this track] Role: Co-author / supervisor. NSERC Discovery.
- C24** “CloudOrch: A Portable SoundCard in the Cloud”, Abram Hindle. *New Interfaces for Musical Expression (NIME 2014)*, 2014. 4pp. [Acceptance rate 26/113 or 23.01% for papers in this track] Role: Author. NSERC Discovery.
- C25** “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**. *International Working Conference on Mining Software Repositories (MSR 2014)*, 2014. 10pp. [Acceptance rate 29/89 or 32.58% for papers in this track]. Role: Project Lead and Author. NSERC Discovery.
- C26** “A Multidimensional Empirical Study on Refactoring”, Nikolaos Tsantalis, Victor Guana, Eleni Stroulia, and Abram Hindle. *23rd Annual Conference of the Center for Advanced Studies (CASCON 2013)*, 2013. 14pp. [Acceptance rate 25/70 or 35.71% for papers in this track]. Role: Supervision and Criticism. NSERC Discovery.
- C27** “On the Personality Traits of StackOverflow Users”, Blerina Bazelli, Abram Hindle, Eleni Stroulia. *International Conference on Software Maintenance (ICSM-2013 ERA Track)*, 2013. 4 pp. [Acceptance Rate: 30/70 or 42.86% for papers in this track] Role: Class project / supervisor. NSERC Discovery.
- C28** “SWARMED: Captive Portals, Mobile Devices, and Audience Participation in Multi-User Music Performance”, Abram Hindle. *New Interfaces for Musical Expression (NIME 2013)*, 2013. 6pp. Daejeon and Seoul, Korea Republic. Role: Author. NSERC Discovery.
- C29** “A contextual approach towards more accurate duplicate bug report detection”, **Anahita Alipour**, Abram Hindle, and Eleni Stroulia. *Working Conference on Mining Software Repositories (MSR-2013)*, May 2013. 10pp. San Francisco USA. IEEE [Acceptance Rate: 31/81 or 38.27% for this track] Role: supervisor, author. NSERC Discovery.
- C30** “Deficient documentation detection: a methodology to locate deficient project documentation using topic analysis”, **Joshua Campbell**, **Zhang Chenlei**, Zhen Xu, Abram Hindle, and James Miller. *Working Conference on Mining Software Repositories Challenge Track (MSR-2013)*, May 2013. 4pp. San Francisco, USA. IEEE [Acceptance rate 12/30 or 40% for this track] Role: Course project / supervisor. NSERC Discovery.

- C31** “Understanding Android Fragmentation with Topic Analysis of Vendor-Specific Bugs”, Dan Han, Zhang Chenlei, Xiachao Fan, Abram Hindle, Kenny Wong, and Eleni Stroulia. *Working Conference on Reverse Engineering (WCRE-2012)*, October 2012. 10pp. Kingston, ON, CANADA. IEEE. [Acceptance rate 43/138 or 31.16% for this track] Role: Course project / supervisor. NSERC Discovery.
- C32** “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. *International Conference on Software Maintenance (ICSM 2012)*, September 2012. 10pp. Riva Del Garda, Italy. IEEE. [Acceptance rate 46/181 or 25.41% for this track] Role: Primary Investigator. Microsoft Research.
- C33** “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. 10pp. Zurich, Switzerland. IEEE. [Acceptance rate 87/408 or 21.32%] Role: Researcher / author. NSF 0964703 and NSF 0613949.
- C34** “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]. **MSR Distinguished/Best Paper Award**. Role: Author. NSERC Discovery.
- C35** “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]. Role: Author. NSERC Discovery.
- C36** “Do the stars align? Multidimensional analysis of Android’s Layered Architecture”, Victor Guana, Fabio De Pinho Rocha, Abram Hindle, and Eleni Stroulia. *Working Conference on Mining Software Repositories: Challenge Track (MSR-2012)*, June 2012. 4pp. Zurich, Switzerland. IEEE. **Mining Challenge Award**. [Acceptance rate 6/17 or 35.29% for this track] Role: Course project supervisor / author. NSERC Discovery.
- C37** “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. 4pp. Zurich, Switzerland. IEEE [Acceptance rate 6/17 or 35.29% for this track] Role: course project supervisor / author. NSERC Discovery.
- C38** “Cohesive and Isolated Development with Branches”, Earl T. Barr, Christian Bird, Peter C. Rigby, Abram Hindle, Daniel M. German, and Premkumar T. Devanbu. *Fundamental Approaches to Software Engineering (FASE 2012)*, March 2012. 10pp. Tallinn, Estonia. [Acceptance rate 33/134 or 24.63% for papers in this track]. Role: Editing and some experiments.
- C39** “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. 5 pp. Limerick, Ireland. [Acceptance rate 22+27/104 for short and full papers: 48%] Role: Co-author.
- C40** “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. 10pp. Limerick, Ireland. [Acceptance rate 22/104 for full papers: 21%] Role: Initial idea, editing.

- C41** “BugCache for Inspections : Hit or Miss?”, Foyzur Rahman, Daryl Posnett, Abram Hindle, Earl Barr, Premkumar Devanbu. *Proceedings of FSE 2011* (FSE-11), Sept 2011. 10pp. Szeged, Hungary [Acceptance rate 34/203 or 16.7% for papers in this track]. Role: Co-author, editing, some programming.
- C42** “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. 10pp. Waikiki, USA [Acceptance rate 20/61 or 33% for papers in this track]. Role: Co-author.
- C43** “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. 10pp. Waikiki, USA [Acceptance rate 20/61 or 33% for papers in this track]. Role: Editing, co-author.
- C44** “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. 10pp. Waikiki, USA [Acceptance rate 20/61 or 33% for papers in this track]. Role: Co-author.
- C45** “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. 4pp. Waikiki, USA [Acceptance rate 46/196 or 23% for papers in this track]. Role: Co-author. NSERC PGS-D.
- C46** “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), September 2010. 10pp. Timisoara, Romania [Acceptance rate of 36/133 or 26% for papers in this track]. Role: Co-author.
- C47** “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. 4pp. Cape Town, South Africa Un-refereed, as I was the challenge chair. Role: Challenge Track Chair. NSERC PGS-D.
- C48** “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. 11pp. Edmonton, Canada, [Acceptance rate 35/162 or 22% for full papers]. Role: Co-author. NSERC PGS-D.
- C49** “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. 10pp. Vancouver, Canada [Acceptance rate 20/74 or 27% for full papers]. Role: Co-author. NSERC PGS-D.
- C50** “Mining Recurrent Activities: Fourier Analysis of Change Events”, 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), May 2009. 4pp. Vancouver, Canada [Acceptance rate 21/118 or 15% for papers in this track]. Role: Co-author. NSERC PGS-D.
- C51** “Reverse Engineering CAPTCHAs”, Abram Hindle, Michael W. Godfrey, and Richard C. Holt. *Proc. of the 2008 Working Conference on Reverse Engineering* (WCRE-08), October 2008. 10pp. Antwerp, Belgium [Acceptance rate 20/70 or 29% for full papers]. Role: Co-author. NSERC PGS-D.

- C52** “From Indentation Shapes to Code Structures”, 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. 10pp. Beijing, China [Acceptance rate: 23/61 or 38% for full papers]. Role: Co-author. NSERC PGS-D.
- C53** “Reading Beside the Lines: Indentation as a Proxy for Complexity Metrics”, 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]. Role: Co-author. NSERC PGS-D.
- C54** “What do large commits tell us?: A taxonomical study of large commits”, Abram Hindle, Daniel M. Germán, Richard C. Holt. *Proc. of the 2008 Working Conference on Mining Software Repositories (MSR-08)*, May 2008. 10pp. Leipzig, Germany [Acceptance rate: 8/42 or 19% for full papers]. Role: Co-author. NSERC PGS-D.
- C55** “Release Pattern Discovery: A Case Study of Database Systems”, Abram Hindle, Michael W. Godfrey, Richard C. Holt. *Proc. of the 2007 Intl. Conference on Software Maintenance (ICSM-07)*, October 2007. 10pp. Paris, France. [Acceptance rate: 41/214 or 21% for full papers]. Role: Co-author. NSERC PGS-D.
- C56** “Measuring Fine-Grained Change in Software: Towards Modification-Aware Change Metrics”, Daniel M. Germán, Abram Hindle. *Proc. IEEE METRICS 2005*, September 2005. 10pp. Como, Italy [Acceptance rate: 39/89 or 44% for full papers]. Role: Co-author, editing. NSERC CGS-M.
- C57** “Visualizing the evolution of software using softChange”, Daniel M. Germán, Abram Hindle, Norman Jordan, *Proc. of Software Engineering Knowledge Engineering (SEKE)*, 2004. 6pp. Banff, Canada [Acceptance rate: 38%]. Role: Co-author, editing. NSERC CGS-M.

REFEREED WORKSHOP PAPERS

- W1** “Green mining: energy consumption of advertisement blocking methods”, **Kent Rasmussen**, **Alexandar Wilson**, and Abram Hindle. *Proceedings of the 3rd International Workshop on Green and Sustainable Software (GREENS 2014)*, 2014. 8pp. Role: Co-author / supervisor. NSERC Discovery.
- W2** “Determining the provenance of software artifacts”, Mike Godfrey, Julius Davis, Daniel Germán and Abram Hindle. *Fifth International Workshop on Software Clones*, 2011 May 2011. 2pp. Waikiki, USA. Role: Co-author, Editing.
- W3** “Software Process Recovery: Recovering Process From Artifacts”, Abram Hindle, *Doctoral Symposium of the 17th Working Conference on Reverse Engineering 2010 (WCRE-10)*, October, 2010. 4pp. Boston, USA. Role: Author. NSERC PGS-D.
- W4** “YARN: Animating Software Evolution”, Abram Hindle, ZhenMing Jiang, Walid Koneilat, 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. 10pp. Banff, Alberta. [Acceptance rate: 15/34 or 44% for full papers]. Role: Co-author. NSERC PGS-D.
- W5** “Release Pattern Discovery via Partitioning: Methodology and Case Study”, Abram Hindle, Michael W. Godfrey, Richard C. Holt. *Proc. of 2007 Intl. Workshop on Mining Software Repositories (MSR-07)*, May 19–20, 2007. 8pp. Minneapolis, USA. [Acceptance rate: 15/39 for full papers, or 38%]. Role: Co-author. NSERC PGS-D.

W6 “SCQL: A formal model and a query language for source control repositories”, Abram Hindle and Daniel M. Germán. *Proc. of 2nd International Workshop on Mining Software Repositories (MSR 2005)*, May 2005. 5pp. St. Louis, USA. [Acceptance rate: 11/38 for full papers, or 29%]. Role: Primary author. NSERC CGS-M.

POSTERS

P1 “Software Process Recovery with Recovered Unified Process Views”, Abram Hindle. MSR Summer School 2010, 9–12 June, 2010, Kingston, Canada. Role: Author.

P2 “Mining Recurrent Activities: Fourier Analysis of Change Events”, Abram Hindle, Michael M. Godfrey, and Richard C. Holt. 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. Role: Author. NSERC PGS-D.

P3 “Evolutionary Focus”, Abram Hindle. Consortium for Software Engineering Research (CSER) Fall Meeting, October 2008. Markham, Canada. Role: Author. NSERC PGS-D.

P4 “Reading Beside the Lines: Measuring the Indentation of Changes”, Abram Hindle. Consortium for Software Engineering Research (CSER) Fall Meeting, October 2007. Markham, Canada. Role: Author. NSERC PGS-D.

P5 “CAPTCHA Breaking: The Visual Adversary”, Abram Hindle. Graduate Student Research Conference 2007, April 23, 2007. University of Waterloo, Waterloo, Canada. Role: Author. NSERC PGS-D.

PEER REVIEWED BOOK CHAPTERS

B1 Chapter: “The Perils of Energy Mining: Measure a Bunch, Compare just Once”, from *Perspectives on Data Science for Software Engineering Software Data*. Abram Hindle. Role: Author. NSERC Discovery.

B2 Chapter: “Latent Dirichlet Allocation: Extracting Topics from Software Engineering Data”, from *The Art and Science of Analyzing Software Data*. **Joshua Charles Campbell**, Abram Hindle, Eleni Stroulia. 2015. 17pp. Role: Co-author / supervisor. NSERC Discovery.

PRESENTATIONS, LECTURES, AND PERFORMANCES

INVITED LECTURES

1. “Green Software Engineering: The Curse of Methodology”, Undergraduate Association of Computing Science, Edmonton, Canada, March 2016
2. “Can big code find errors”, Programming with “Big Code”, Dagstuhl, Germany, November 2015
3. “Green-Star: Energy Star-like ratings for Apps”, NII Shohan, Shonan Village, Japan, October 2015
4. “The trouble with performance analytics”, Dagstuhl Seminar, Dagstuhl, Germany, June 2014
5. “Green Mining Infrastructure”, NII Shohan, Shonan Village, Japan, October 2013
6. “Unnatural Code”, Naturalness of Software Colloquium, UC Davis, California, May 2013
7. “Lessons learned from Green Mining”,ASDS, Ascona, Switzerland, March 2013
8. “CSER Keynote: Software Process Recovery: Picking the Fruit of Empirical Software Engineering”, CSER, Markham, Ontario, Sept 2011
9. “Evidence-based Software Process Recovery”, Microsoft Research, Redmond, November 2010
10. “Recovered Unified Process Views”, UC Davis and the University of Victoria, May 2010
11. “Fast, Cheap, and Under Control: Evaluating Revision Data Reliably”, Dagstuhl Seminar 07491 on Mining Programs and Processes, December 2007. Wadern, Germany.

ACADEMIC LECTURES

1. “On The Collision of Software Engineering with Computer Music”, University of Victoria, Canada. April 2015
2. “On the Naturalness and Unnaturalness of Software”, Hong Kong University of Science and Technology, Hong Kong, December 2014
3. “Green Mining: Extracting Energy Consumption Profiles to Answer Questions about Your Applications”, CSER, Edmonton, Canada, May 2014
4. “On the Naturalness of Software”, University of Victoria, Victoria, Canada, February 2014
5. “Events Matter, Experiences Green Mining”, MSR Asia, Kyoto, Japan, October 2013
6. “Automated Process Extraction”, Seminar on Advanced Tools & Techniques for Software Evolution (SATTOSE) 2009, April 2009. Baie de Somme, France.
7. Software Engineering Research Group PhD Seminar: “Reading Beside the Lines: Indentation as a Proxy for Complexity Metrics”, May 22, 2008.
8. “The Road to Automated Process Extraction”, Seminar on Advanced Tools & Techniques for Software Evolution (SATTOSE) 2008, February 2008. Waulsort, Belgium.
9. “Release Pattern Discovery via Partitioning: Methodology and Case Study”, Consortium for Software Engineering Research (CSER), Fall Meeting 2007. Markham, Canada.

10. Software Engineering Research Group PhD Seminar: “Release Pattern Discovery: A Case Study of Database Systems”, September 20, 2007.
11. Software Engineering Research Group PhD Seminar: “YARN: Animating Software Evolution”, June 13, 2007.
12. Software Engineering Research Group PhD Seminar: “Release Pattern Discovery via Partitioning: Methodology and Case Study”, May 16, 2007.
13. “Visualizing the evolution of software using softChange”, UVic SENG Colloquium, 2004.
14. “Audio In Hypermedia Lecture”, Dr. Germán’s 2003 and 2004 Hypermedia classes.
15. “OOP in Perl”, to Dr. M. Zastre’s SENG265 class at UVic, 2004.

PERFORMANCES

1. Musical Performance, Art’s Birthday, Boreal Acoustic Music Society, Edmonton, Canada, January 2016
2. Musical Performance, Norcal Noise Fest, Sacramento, California, September 2015
3. “Sound of Stars”,Musical Performance, Dark Night, Telus World of Science, Edmonton, Canada, October 2015.
4. “Noise of Nature”,Musical Performance, Bangladesh Student Society FRESHER night, Edmonton, Canada, September 2015.
5. “Connectivity”,installation and performance, Nuit Blanche, Edmonton, Canada, September 2015
6. Musical Performance, Quarter’s Art’s Night, Boreal Acoustic Music Society, Edmonton, Canada, July 2015
7. Musical Performance, WORK Art’s Festival, Boreal Acoustic Music Society, Edmonton, Canada, June 2015
8. Musical Performance, Art’s Birthday, Boreal Acoustic Music Society, Edmonton, Canada, January 2015
9. Musical Performance, Edmonton Sound Art and Noise Festival, April, 2014
10. Musical Performance, Art’s Birthday, Boreal Acoustic Music Society, Edmonton, Canada, January 2014
11. Computer Vision Improv Musical Performance, Boreal Acoustic Music Society, Edmonton, Canada, November 2013
12. “SWARMED: Bubble Wrap”,Musical Performance, Edmonton WORKS Festival, Edmonton, Canada, June 2013
13. “SWARMED”,Musical Performance, THE WORKS 2012 Festival Edmonton, Alberta, June 2012

NON-ACADEMIC PRESENTATIONS

1. “Introduction to Deep Learning”, Edmonton Python Users Group, Edmonton, Canada, February 2016
2. “HTTP/2.0”, Edmonton Exchange.JS Meetup, Edmonton, Canada, February 2016
3. “Generic Map/Reduce in Go”, Edmonton Go User’s Group, Edmonton, Canada, April 2014
4. “Iteration in Go”, Edmonton Go User’s Group, Edmonton, Canada, February 2014
5. “Go and C”, Edmonton Go User’s Group, Edmonton, Canada, November 2013
6. “Websockets”, Edmonton Javascript User’s Group, Edmonton, Canada, September 2013
7. “Iteration in Python”, Edmonton Python User’s Group, Edmonton, Canada, September 2013
8. “Design Patterns in Ruby”, YEGRB: Edmonton Ruby Users Group, Edmonton, Canada, March 2013
9. “Addressing Mobile Users with SVG, Canvas and JS”, Exchange.JS: Edmonton Javascript User Group, Edmonton, Canada, January 2013
10. “Android Activity Lifecycle” YEGDROID: Edmonton Android Users Group, Edmonton, Canada, April 2013
11. “Intro to OCaml” EFPUG: Edmonton Functional Programming Users Group, Edmonton, Canada, November 2012
12. “Web Based Computer Music UIs with Mongrel2 and Harbinger”, Toronto Perl Mongers, August 2010
13. “Android-based Distributed Computer Music”, short talk with Toronto Perl Mongers, June 2010
14. “OpenID, Email extracting/parsing and Topic Analysis!”, Kitchener/Waterloo Perl Mongers, January 2010
15. “Mandelbulb: Exploring 3D Fractals”, Kitchener/Waterloo Perl Mongers, November 2009.
16. “Various Short Talks: Twitter, IRC and Perl”, Toronto Perl Mongers, April 2009.
17. “Harbinger: Making your desktop sing with the help of Perl and Lispy Perl”, Toronto Perl Mongers, March 2009.
18. “Harbinger: Sonifying the mundane and mildly entertaining”, Kitchener/Waterloo Perl Mongers, March 2009.
19. “Magick Scheme Image Manipulation Gateway”, Toronto Ruby Users’ Group, March 2009.
20. “Magick-scheme and Lispy Perl”, Toronto LISP Users’ Group, February 2009.
21. “Lispy Perl or Perlish Lisp”, Kitchener/Waterloo Perl Mongers, November 2008.
22. “Hpricot and webscraping”, Toronto Ruby Users’ group, September 2008.
23. “Hiding in Public: File Management in Unsafe Conditions”, Toronto Perl Mongers, February 2008.
24. “Perl in Scheme”, Kitchener/Waterloo Perl Mongers, October 2007.
25. “Beyond Perl”, Kitchener/Waterloo Perl Mongers, October 2006.
26. “Uses of IRC Bots”, Kitchener/Waterloo Perl Mongers, February 2006

27. “Game Development in Perl”, UVic Game Developers Club, 2004 .
28. “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

GRANTS

2016	KIAS Team Grant with M. Friskopf et al. \$7500
2015	MITACS Accelerate Cluster with Bioware \$106666
2014	NSERC Engage with BioWare \$22000
2013	Microsoft Software Engineering Innovation Foundation Award \$25000
2012 – 2017	NSERC Discovery Grant \$95000
2011	Start-up Grant \$ 100000

PAPER AND PRESENTATION AWARDS

2016	SIGSOFT ACM Distinguished Paper Award – ICSE 2016
2015	Best MSR Mining Challenge Paper – MSR 2016
2015	Best MSR Mining Challenge Paper – MSR 2015
2012	MSR Best Paper Award – MSR 2012
2012	Best MSR Mining Challenge Paper – MSR 2012
2010	Best Presentation Award - Mining Software Archives 2010

TEACHING AWARDS

2015	The Interdepartmental Science Students’ Society: Excellence in Undergraduate Teaching Award
2014	Faculty of Science: Student’s Honor Roll

SCHOLARSHIPS

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.

SERVICE

2016 – 2017	MSR 2017 Program Co-Chair
2011 – 2013, 2016	ICSM / ICSME Program Committee
2015 – 2016	Exchange.JS Organization Committee
2015 – 2016	MSR Steering Committee
2011 – 2014, 2016	MSR Program Committee
2014, 2016	GREENS Program Committee
2014 – 2016	IT Oversight Committee
2014 – 2015	Reviewed for SANER
2013, 2015	SCAM Program Committee
2011–2013, 2015	Reviewed for TOSEM
2011 – 2015	Reviewed for EMSE
2015	ICSME Tools Program Committee
2011, 2013, 2015	Reviewed for IEEE Software
2014 – 2015	Reviewed for NSERC CRD and NSERC Discovery Grants
2012, 2013, 2015	Reviewed for Journal of Software Systems
2012 – 2015	Reviewed for TSE
2014	Reviewed for Journal Science of Computer Programming
2014	International Working Conference on Source Code Analysis and Manipulation 2014 (SCAM) Program Co-Chair
2014	ICSME Tools Co-Chair
2014	ICSE 2014 Tool Demo Program Committee
2011 – 2013	ICSE 2013 Web Chair
2011 – 2013	ICPC Program Committee
2012 – 2013	Distinguished Lecture Series Coordinator
2013	DAPSE 2013 Program Committee
2013	DeSForM 2013 Subreviewer
2012	CASCON 2012 Program Committee
2012	IWESEP 2012 Program Committee
2011, 2012	WCRE Program Committee
2012	ICPC 2012 Tool Demo Track Co-Chair
2011	FSE 2011 Tool Demos Program Committee
2011	WCRE 2011 Tool Demos Program Committee
2010	Data Analysis in Software Engineering 2011 Program Committee
2010	WCRE 2010 Workshop Co-Chair.
2010	MSR 2010 Mining Challenge Chair
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.

- 2009 MSR 2009 Web Chair
- 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)

PROFESSIONAL MEMBERSHIP

- Association for Computing Machinery Member, 2015 –
- IEEE Society Member, 2004 – 2015
- Boreal Electroacoustic Music Society, 2013 –
- New Music Edmonton, 2013 –

SUPERVISION

- Joshua Campbell – PhD in Progress (Candidacy Exam Complete)
- Candy Pang – PhD in Progress (Candidacy Exam Complete)
- Shaiful Chowdhury – PhD in Progress
- Stephen Romansky – Masters in Progress
- Eddie Santos – Masters in Progress
- Varun Sapra – Course-based Masters “Web Server Energy Efficiency Under HTTP/2”
- Karan Aggarwal – Masters 2015 “Using System Calls to Track Application Energy Consumption Profiles”
- Gregory Bulet – Masters 2015 “Guitar Tablature Transcription using a Deep Belief Network”
- Anahita Alipour – Masters 2013 “A Contextual Approach towards More Accurate Duplicate Bug Report Detection”
- Chenlei Zhang – Masters 2013 “The Impact of User Choice and Software Change on Energy Consumption”

TEACHING

2016	CMPUT 404	Web Services	Winter
2016	CMPUT 811	Multimedia Data Mining (1 week)	
2016	CMPUT 664	Machine Learning Applied: Software Analytics	Winter
2016	CMPUT 492	Directed Studies: Software Energy Consumption	Winter
2016	CMPUT 701	Course-based Masters Essay	Winter
2015	CMPUT 701	Course-based Masters Essay	Fall
2015	CMPUT 410	Web Services	Winter
2015	CMPUT 301	Intro to SE	Winter
2015	CMPUT 301	Intro to SE	Fall
2015	CMPUT 496	Directed Studies	Winter
2015	CMPUT 496	Directed Studies	Summer
2015	CMPUT 605	Directed Studies	Winter
2014	CMPUT 496	Directed Studies	Fall
2014	CMPUT 410	Web Services	Winter
2014	CMPUT 301	Intro to SE	Winter
2014	CMPUT 301	Intro to SE	Fall
2013	CMPUT 660	Topics in MSR and the Cloud	
2013	CMPUT 497	Directed Studies	Fall
2013	CMPUT 301	Intro to SE	Winter
2013	CMPUT 301	Intro to SE	Fall
2013	CMPUT 664	Topics in Mining Software Repositories	
2012	CMPUT 301	Intro to SE	Fall
2012	CMPUT 301	Intro to SE	Winter
2012	CMPUT 664	Topics in Mining Software Repositories	

INTERESTS AND HOBBIES

Programming and programming languages are a particular passion of mine. I am a member of numerous Edmonton based developer user groups. I have been an active member of developer user groups in Victoria, Waterloo, Toronto, Davis, and Edmonton. I like to learn new languages, concepts, and enjoy writing serious software in languages like OCaml, Haskell, Common LISP, Perl, Javascript, and Ruby. I am an active programmer.

Computer music — I have performed music numerous times at the Victoria Noise Festival, the Sacramento Norcal Noise Fest, “The Lab” in San Francisco, and in Edmonton. I produce computer noise music with my own software and hardware. In fact much of my musical code ends up in my research code (signal processing).