

Bogdan Dit

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[College of Engineering](#)
[Boise State University](#)
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Research Interests

Software engineering, software evolution and maintenance, program comprehension, software repository mining, application of information retrieval in software engineering, reproducibility of experiments in software maintenance

Professional Experience

Assistant Professor, Computer Science Department, Boise State University, Boise, ID; August 2015 – present

Lecturer, Computer Science Department, Boise State University, Boise, ID; August 2014 – August 2015

Graduate Research Assistant, Computer Science Department, The College of William and Mary, Williamsburg, VA; June 2011 – May 2014

Graduate Teaching Assistant, Computer Science Department, The College of William and Mary, Williamsburg, VA; August 2009 – May 2011

Instructor, Computer Science Department, Wayne State University, Detroit, MI; May 2008 – May 2009

Graduate Teaching Assistant, Computer Science Department, Wayne State University, Detroit, MI; August 2006 – May 2009

Education

Doctor of Philosophy in Computer Science (August 2009 – August 2015)

The College of William and Mary, Williamsburg, VA, USA

Dissertation title: *Configuring and Assembling Information Retrieval based Solutions for Software Engineering Tasks*

Committee: Denys Poshyvanyk (advisor), Peter Kemper, Xu Liu, Andrian Marcus, Massimiliano Di Penta

Master of Science in Computer Science (August 2006 – May 2009)

Wayne State University, Detroit, MI, USA

Bachelor of Science in Computer Science (September 2002 – June 2006)

Babeş-Bolyai University, Cluj-Napoca, Romania

Awards

Best Paper Award at the 29th IEEE International Conference on Software Maintenance ([ICSM](#)).... 2013

ACM SIGSOFT CAPS travel award 2012

Refereed Journal Articles

- [J3] **Dit, B.**, Moritz, E., Linares-Vásquez, M., Poshyvanyk, D., and Cleland-Huang, J., "Supporting and Accelerating Reproducible Empirical Research in Software Evolution and Maintenance using TraceLab Component Library", *Empirical Software Engineering (EMSE)*, vol. 20, no. 5, October 2015, pp. 1198-1236, doi: 10.1007/s10664-014-9339-3
- [J2] **Dit, B.**, Revelle, M., and Poshyvanyk, D., "Integrating Information Retrieval, Execution and Link Analysis Algorithms to Improve Feature Location in Software", *Empirical Software Engineering (EMSE)*, vol. 18, no. 2, April 2013, pp. 277-309, doi: 10.1007/s10664-011-9194-4
- [J1] **Dit, B.**, Revelle, M., Gethers, M., and Poshyvanyk, D., "Feature Location in Source Code: A Taxonomy and Survey", *Journal of Software: Evolution and Process (ISEP)*, vol. 25, no. 1, January 2013, pp. 53–95, doi: 10.1002/smr.567, Google Scholar Citations as of November 30, 2013: 104

Refereed Conference Publications

- [C17] **Dit, B.**, "Configuring and Assembling Information Retrieval based Solutions for Software Engineering Tasks", in the *Proceedings of the 32nd IEEE International Conference on Software Maintenance and Evolution (ICSME2016) – Doctoral Symposium Track*, Raleigh, North Carolina, October 2-10, 2016, pp. to appear
- [C16] Panichella, A., **Dit, B.**, Oliveto, R., Di Penta, M., Poshyvanyk, D., and De Lucia, A., "Parameterizing and Assembling IR-based Solutions for Software Engineering Tasks using Genetic Algorithms", in the *Proceedings of the 23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER2016)*, Osaka, Japan, March 14-18, 2016, pp. 314-325 (37% acceptance ratio)
- [C15] Beck, F., **Dit, B.**, Velasco-Madden, J., Weiskopf, D., and Poshyvanyk, D., "Rethinking User Interfaces for Feature Location", in the *Proceedings of the 23rd IEEE International Conference on Program Comprehension (ICPC2015)*, Florence, Italy, May 18-19, 2015, pp. 151-162 (31.5% acceptance ratio)
- [C14] **Dit, B.**, Wagner, M., Wen, S., Wang, W., Linares-Vásquez, M., Poshyvanyk, D., and Kagdi, H., "ImpactMiner: A Tool for Change Impact Analysis", in the *Proceedings of the 36th IEEE/ACM International Conference on Software Engineering (ICSE2014) – Formal Demonstration Track*, Hyderabad, India, May 31-June 7, 2014, pp. 540-543 (36.5% acceptance ratio)
- [C13] **Hill, E.**, Bacchelli, A., Binkley, D., Dit, B., Lawrie, D., and Oliveto, R., "Which Feature Location Technique is Better?", in the *Proceedings of the 29th IEEE International Conference on Software Maintenance (ICSM2013), ERA Track*, Eindhoven, the Netherlands, September 22-28, 2013, pp. 408-411 (43% acceptance ratio)
- [C12] **Dit, B.**, Moritz, E., Linares-Vásquez, M., and Poshyvanyk, D., "Supporting and Accelerating Reproducible Research in Software Maintenance using TraceLab Component Library", in the *Proceedings of the 29th IEEE International Conference on Software Maintenance (ICSM2013)*, Eindhoven, the Netherlands, September 22-28, 2013, pp. 330-339 (22% acceptance ratio)

This paper won the *Best Paper Award*

This paper was invited to the special issue in [Empirical Software Engineering \(EMSE\)](#) journal.

- [C11] Dasgupta, T., Grechanik, M., Moritz, E., **Dit, B.**, and Poshyvanyk, D., "Enhancing Software Traceability By Automatically Expanding Corpora With Relevant Documentation", in the *Proceedings of the 29th IEEE International Conference on Software Maintenance (ICSM2013)*, Eindhoven, the Netherlands, September 22-28, 2013, pp. 320-329 (22% acceptance ratio)
- [C10] Bavota, G., **Dit, B.**, Oliveto, R., Di Penta, M., Poshyvanyk, D., and De Lucia, A., "An Empirical Study on the Developers' Perception of Software Coupling", in the *Proceedings of the 35th IEEE/ACM International Conference on Software Engineering (ICSE2013)*, San Francisco, CA, May 18-26, 2013, pp. 692-701 (18.5% acceptance ratio)
- [C9] Panichella, A., **Dit, B.**, Oliveto, R., Di Penta, M., Poshyvanyk, D., and De Lucia, A., "How to Effectively Use Topic Models for Software Engineering Tasks? An Approach based on Genetic Algorithms", in the *Proceedings of the 35th IEEE/ACM International Conference on Software Engineering (ICSE2013)*, San Francisco, CA, May 18-26, 2013, pp. 522-531 (18.5% acceptance ratio)
- [C8] Linares-Vásquez, M., **Dit, B.**, and Poshyvanyk, D., "An Exploratory Analysis of Mobile Development Issues Using Stack Overflow", in the *Proceedings of the 10th Working Conference on Mining Software Repositories (MSR2013), Mining Challenge Track*, San Francisco, CA, May 18-19, 2013, pp. 93-96 (40% acceptance ratio)
- [C7] **Dit, B.**, Holtzhauer, A., Poshyvanyk, D., and Kagdi, H., "A Dataset from Change History to Support Evaluation of Software Maintenance Tasks", in the *Proceedings of the 10th Working Conference on Mining Software Repositories (MSR2013), Data Track*, San Francisco, CA, May 18-19, 2013, pp. 131-134 (55.6% acceptance ratio)
- [C6] **Dit, B.**, Moritz, E., and Poshyvanyk, D., "A TraceLab-based Solution for Creating, Conducting, and Sharing Feature Location Experiments", in the *Proceedings of the 20th IEEE International Conference on Program Comprehension (ICPC2012)*, Passau, Germany, June 11-13, 2012, short paper, pp. 203-208 (25% acceptance ratio for short papers)
- [C5] Gethers, M., **Dit, B.**, Kagdi, H., and Poshyvanyk, D., "Integrated Impact Analysis for Managing Software Changes", in the *Proceedings of the 34th IEEE/ACM International Conference on Software Engineering (ICSE2012)*, Zurich, Switzerland, June 2-9, 2012, pp. 430-440 (21% acceptance ratio)
- [C4] Gethers, M., Kagdi, H., **Dit, B.**, and Poshyvanyk, D., "An Adaptive Approach to Impact Analysis from Change Requests to Source Code", in the *Proceedings of the 26th IEEE/ACM International Conference on Automated Software Engineering (ASE2011)*, Lawrence, Kansas, USA, November 6-10, 2011, short paper, pp. 540-543 (37% acceptance ratio)
- [C3] **Dit, B.**, Guerrouj, L., Poshyvanyk, D., and Antoniol, G., "Can Better Identifier Splitting Techniques Help Feature Location?", in the *Proceedings of the 19th IEEE International Conference on Program Comprehension (ICPC2011)*, Kingston, Ontario, Canada, June 22-24, 2011, pp. 11-20 (24% acceptance rate)
- [C2] Savage, T., **Dit, B.**, Gethers, M., and Poshyvanyk, D., "TopicXP: Exploring Topics in Source Code using Latent Dirichlet Allocation", in the *Proceedings of the 26th IEEE International Conference on Software Maintenance (ICSM2010), Formal Research Tool Demonstration*, Timisoara, Romania, September 12-18, 2010, pp. 1-6
- [C1] Revelle, M., **Dit, B.**, and Poshyvanyk, D., "Using Data Fusion and Web Mining to Support Feature Location in Software", in the *Proceedings of the 18th IEEE International Conference on Program Comprehension (ICPC2010)*, Braga, Portugal, June 30 - July 2, 2010, pp. 14-23 (19.7% acceptance ratio)

Refereed Workshop Publications

[W4] **Dit, B.**, Panichella, A., Moritz, E., Oliveto, R., Di Penta, M., Poshyvanyk, D., and De Lucia, A., "Configuring Topic Models for Software Engineering Tasks in TraceLab", in *the Proceedings of the 7th IEEE International Conference on Software Engineering (ICSE2013), International Workshop on Traceability in Emerging Forms of Software Engineering (TEFSE2013)*, San Francisco, California, May 19, 2013, pp. 105-109.

[W3] Klock, S., Gethers, M., **Dit, B.**, and Poshyvanyk, D., "Traceclipse: An Eclipse Plug-in for Traceability Link Recovery and Management", in *the Proceedings of the 6th IEEE International Conference on Software Engineering (ICSE2011), International Workshop on Traceability in Emerging Forms of Software Engineering (TEFSE2011)*, Honolulu, Hawaii, USA, May 23, 2011, pp. 24-30.

[W2] **Dit, B.**, Marcus, A., "Improving the Readability of Defect Reports", in *the Proceedings of International FSE2008 Workshop on Recommendation Systems for Software Engineering (RSSE2008)*, Atlanta, Georgia, November 10th, 2008, pp. 47-49.

[W1] **Dit, B.**, Poshyvanyk, D., Marcus, A., "Measuring the Semantic Similarity of Comments in Bug Reports", *1st International ICPC2008 Workshop on Semantic Technologies in System Maintenance (STSM2008)*, Amsterdam, The Netherlands, June 10th, 2008.

Formal Conference Presentations

Research Paper Presentation of "Supporting and Accelerating Reproducible Research in Software Maintenance using TraceLab Component Library", at the 29th IEEE International Conference on Software Maintenance ([ICSM2013](#)), Eindhoven, the Netherlands, September 26, 2013.

Research Paper Presentation of "An Empirical Study on the Developers' Perception of Software Coupling", at the 35th IEEE/ACM International Conference on Software Engineering ([ICSE2013](#)), San Francisco, CA, May 24, 2013.

Research Paper Presentation of "How to Effectively Use Topic Models for Software Engineering Tasks? An Approach based on Genetic Algorithms", at the 35th IEEE/ACM International Conference on Software Engineering ([ICSE2013](#)), San Francisco, CA, May 23, 2013.

Research Paper Presentation of "Configuring Topic Models for Software Engineering Tasks in TraceLab", at the 7th International Workshop on Traceability in Emerging Forms of Software Engineering ([TEFSE2013](#)), San Francisco, CA, May 19, 2013.

Research Paper Presentation (Data Track) of "A Dataset from Change History to Support Evaluation of Software Maintenance Tasks", at the 10th Working Conference on Mining Software Repositories ([MSR2013](#)), San Francisco, CA, May 18, 2013.

Research Paper Presentation of "A TraceLab-based Solution for Creating, Conducting, and Sharing Feature Location Experiments", at the 20th IEEE International Conference on Program Comprehension ([ICPC2012](#)), Passau, Germany, June 13, 2012.

Research Paper Presentation of "Can Better Identifier Splitting Techniques Help Feature Location?", at the 19th IEEE International Conference on Program Comprehension ([ICPC2011](#)), Kingston, Ontario, Canada, June 22, 2011.

Teaching Experience

Instructor, Boise State University (Fall 2016)

Course: Agile Development for Large Open Source Software Systems (CS 497, Undergraduate)

Co-Instructor, Boise State University (Fall 2016)

Course: Senior Design Project (CS 481, Undergraduate)

Instructor, Boise State University (Spring 2016)

Course: Introduction to the Theory of Computation (CS 361, Undergraduate)

Instructor, Boise State University (Fall 2015)

Course: Software Maintenance and Evolution (CS 597, Graduate)

Instructor, Boise State University (Summer 2015)

Course: Introduction to the Theory of Computation (CS 361, Undergraduate)

Instructor, Boise State University (Spring 2015)

Course: Computer Science II (CS 221, Undergraduate; Two sections)

Instructor, Boise State University (Fall 2014)

Course: Data Structures (CS 321, Undergraduate)

Teaching Assistant, The College of William and Mary (Winter 2011)

Course: Software Engineering (CS 435/535, Undergraduate/Graduate), taught by Denys Poshyvanyk

Lab Instructor, The College of William and Mary (Winter 2011)

Course: Computational Problem Solving (CS 141, Undergraduate), taught by Debbie Noonan

Teaching Assistant, The College of William and Mary (Fall 2010)

Course: Advanced Software Engineering (CS 635, Graduate), taught by Denys Poshyvanyk

Teaching Assistant, The College of William and Mary (Fall 2010)

Course: Advanced Analysis of Algorithms (CS 723, Graduate), taught by Weizhen Mao

Teaching Assistant, The College of William and Mary (Winter 2010)

Course: Software Engineering (CS 435, Undergraduate), taught by Denys Poshyvanyk

Lab Instructor and Teaching Assistant, The College of William and Mary (Fall 2009)

Course: Introduction to Computer Science using Java (CS 141, Undergraduate), taught by Debbie Noonan

Instructor, Wayne State University (Winter 2009)

Course: Introduction to C++ Programming Language (CSC 2000, Undergraduate, 36 students)

Managed two TAs who were in charge of labs

Instructor, Wayne State University (Fall 2008)

Course: Introduction to C++ Programming Language (CSC 2000, Undergraduate, 35 students)

Managed two TAs who were in charge of labs

Instructor, Wayne State University (Spring/Summer 2008)

Course: Introduction to C++ Programming Language (CSC 2000, Undergraduate, 22 students)

Managed one TA who were in charge of a lab section

Tutor, Wayne State University (Summer 2008)

I interacted with undergraduate students one-on-one and helped them with their problems related to CS courses

Teaching Assistant, Wayne State University (Winter 2008, Fall 2007)

Course: Graduate Seminar (CSC 8990, Graduate), taught by Farshad Fotouhi

Teaching Assistant, Wayne State University (Winter 2007, Fall 2006)

Network Administrator

Governance

Departmental service:

Establishing Ph.D. Program Committee Fall 2014-Fall 2016

Graduate Admissions Committee..... Fall 2014-Fall 2016

Computer Science Club Advisor Fall 2014-present

Professional Service

Program committees:

24th IEEE International Conference on Program Comprehension ([ICPC2016](#)) – Short Paper Track2016

7th IEEE International Workshop on Empirical Software Engineering in Practice ([IWESEP2016](#))2016

3rd IEEE Working Conference on Software Visualization ([VISSOFT2015](#)) – NIER and Tool Demonstration Track2015

5th Workshop on Mining Unstructured Data ([MUD2015](#)).....2015

23rd IEEE International Conference on Program Comprehension ([ICPC2015](#)) – Tool Demonstration Track.....2015

Joint conference of [18th IEEE CSMR and 21st WCRE2014](#) – ERA Track.....2014

20th Working Conference on Reverse Engineering ([WCRE2013](#)) – Tool Demonstration Track .2013

3rd Workshop on Mining Unstructured Data ([MUD2013](#))2013

10th Working Conference on Mining Software Repositories ([MSR2013](#)) – Data Track.....2013

Organizing committees:

Student volunteer for 34th IEEE [ICSE](#).....2012

Student volunteer for 27th IEEE [ICSM](#)2011

Student volunteer for 11th IEEE [SCAM](#).....2011

Student volunteer for 13th IEEE [WSE](#).....2011

Student volunteer for 6th IEEE [VISSOFT](#)2011

Student volunteer for 2011 IEEE [MESOCA](#)2011

Web-Chair for 4th IEEE [VISSOFT](#).....2007

Web-Chair for ICSM [Resource Site](#) 2007-2009

Reviewer:

Journal of Software Testing, Verification & Reliability ([STVR](#))2016

Frontiers of Computer Science ([FCS](#)).....2016

21st Asia-Pacific Software Engineering Conference ([APSEC'14](#)).....2014

IEEE Transactions on Software Engineering ([TSE](#)).....2014, 2013, 2012, 2011, 2010
ACM Transactions on Software Engineering and Methodology ([TOSEM](#))2013, 2012, 2010
Empirical Software Engineering ([EMSE](#))2015, 2014, 2013, 2012, 2010
Journal of Software: Evolution and Process ([JSEP](#)).....2013, 2012
Science of Computer Programming ([SCP](#)).....2011
Journal of Systems and Software ([JSS](#)).....2013
Software: Practice and Experience ([SPE](#)).....2012
Software Quality Journal ([SQJ](#)).....2010
Information and Software Technology Journal ([IST](#))2012
IEEE International Conference on Software Engineering ([ICSE](#))2014
IEEE International Conference on Software Maintenance ([ICSM](#)).....2012, 2011, 2010
IEEE International Conference on Program Comprehension ([ICPC](#))2012
IEEE Working Conference on Reverse Engineering ([WCRE](#))2013, 2010
IEEE European Conference on Software Maintenance and Reengineering ([CSMR](#)).....2012, 2010
IEEE Working Conference on Mining Software Repositories ([MSR](#)).....2013
International Working Conference on Source Code Analysis and Manipulation ([SCAM](#))2013
International Workshop on Principles of Software Evolution ([IWPSE](#))2013, 2011
Workshop on Recommendation Systems for Software Engineering ([RSSE](#))2012

Other Service:

Web-Master for [SEMERU](#) Research GroupJanuary 2012-June 2013
Secretary, Computer Science Graduate Student Association (CSGSA) 2011-2012

Professional Affiliations

Member, Association for Computing Machinery ([ACM](#))
Member, Institute of Electrical and Electronics Engineers ([IEEE](#))
Member, ACM Special Interest Group on Software Engineering ([SIGSOFT](#))