Nikolaos Tsantalis — Curriculum Vitae

Contact Information

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Research Interests

Software maintenance and evolution, Empirical software engineering, Refactoring recommendation systems, Refactoring mining, Software quality assurance, Design pattern detection

Work Experience

Professor — June 2024 – present
Department of Computer Science and Software Engineering,
Concordia University, Montreal, Canada

Associate Professor — June 2017 – May 2024
Department of Computer Science and Software Engineering,
Concordia University, Montreal, Canada

Assistant Professor — July 2012 – May 2017
Department of Computer Science and Software Engineering,
Concordia University, Montreal, Canada

Postdoctoral Fellow — Jan 2011 – May 2012
Department of Computing Science,
University of Alberta, Edmonton, Canada

Education

University of Macedonia, Thessaloniki, Greece

Ph.D. in Applied Informatics (Software Engineering) — Dec 2006 – Sep 2010

- Thesis: "Evaluation and Improvement of Software Architecture: Identification of Design Problems in Object-Oriented Systems and Resolution through Refactorings"

M.Sc. in Applied Informatics (Computer Systems) — Oct 2004 – Aug 2006

- Thesis: "Design Pattern Detection Using Graph Matching Algorithms"

B.Sc. in Applied Informatics — Oct 2000 – Sep 2004

- Thesis: "Predicting the Probability of Change in Object-Oriented Systems"

Licensing

Professional Engineers of Ontario - Limited License in the category of Software
License number: 100221052, Date of issue: November 3rd, 2015

Research Funding

Project	Funding Source	Funding
Refactoring-aware and semantic-aware source code differencing (PI)	NSERC Discovery	$240,000 CAD (2024-2029)
Refactoring Recommendation 2.0 (PI)	NSERC Discovery	$204,000 CAD (2018-2024)
Pattern Extraction (PI)	Huawei Technologies	$176,247 CAD (2016-2017)
Concordia University Research Chair in Web Software Technologies (PI)	Vice-President, Research and Graduate Studies	$100,000 CAD (2015-2020)
Improving the Maintainability and Efficiency of Cascading Style Sheets (PI)	FRQNT New University Researchers Start-up	$40,000 CAD (2014-2016)
A Framework for the Management of Preventive Maintenance (PI)	NSERC Discovery	$100,000 CAD (2013-2018)
Supporting Preventive Maintenance through the Detection of Refactoring Opportunities (PI)	ENCS Start-up	$50,000 CAD (2012-2014)

Selected Publications

Google Scholar Citations: 5311, h-index: 32

Journal Papers

1. P. Alikhanifard, and **N. Tsantalis**, "A Novel Refactoring and Semantic Aware Abstract Syntax Tree Differencing Tool and a Benchmark for Evaluating the Accuracy of Diff Tools," *ACM Transactions on Software Engineering and Methodology*, 2024.
2. A. J. Jafari, D. E. Costa, R. Abdalkareem, E. Shihab, and **N. Tsantalis**, "Dependency Smells in JavaScript Projects," *IEEE Transactions on Software Engineering*, vol. 48, no. 10, pp. 3790-3807, October 2022.
3. **N. Tsantalis**, A. Ketkar, and D. Dig, "RefactoringMiner 2.0," *IEEE Transactions on Software Engineering*, vol. 48, no. 3, pp. 930-950, March 2022. (top-2 cited papers published at TSE in 2020)
4. S. S. Afjehei, T.-H. Chen, and **N. Tsantalis**, "iPerfDetector: Characterizing and detecting performance anti-patterns in iOS applications," *Empirical Software Engineering*, vol. 24, no. 6, pp. 3484-3513, December 2019.
5. M. Hassani, W. Shang, E. Shihab, and **N. Tsantalis**, "Studying and Detecting Log-Related Issues," *Empirical Software Engineering*, vol. 23, no. 6, pp. 3248-3280, December 2018.
6. E. da S. Maldonado, E. Shihab, and **N. Tsantalis**, "Using Natural Language Processing to Automatically Detect Self-Admitted Technical Debt," *IEEE Transactions on Software Engineering*, vol. 43, no. 11, pp. 1044-1062, November 2017. (top-6 cited papers published at TSE in 2017)
7. **N. Tsantalis**, D. Mazinanian, and G. P. Krishnan, "Assessing the Refactorability of Software Clones," *IEEE Transactions on Software Engineering*, vol. 41, no. 11, pp. 1055-1090, November 2015.
8. M. Fokaefs, **N. Tsantalis**, E. Stroulia, and A. Chatzigeorgiou, "Identification and Application of Extract Class Refactorings in Object-Oriented Systems," *The Journal of Systems and Software*, vol. 85, no. 10, pp. 2241-2260, October 2012.
9. **N. Tsantalis**, and A. Chatzigeorgiou, "Identification of Extract Method Refactoring Opportunities for the Decomposition of Methods," *Journal of Systems and Software*, vol. 84, no. 10, pp. 1757-1782, October 2011. (top-9 cited papers published at JSS in 2011)
10. **N. Tsantalis**, and A. Chatzigeorgiou, "Identification of Refactoring Opportunities Introducing Polymorphism," *Journal of Systems and Software*, vol. 83, no. 3, pp. 391-404, March 2010.
11. **N. Tsantalis**, and A. Chatzigeorgiou, "Identification of Move Method Refactoring Opportunities," *IEEE Transactions on Software Engineering*, vol. 35, no. 3, pp. 347-367, May/June 2009. (top-7 cited papers published at TSE in 2009)
12. S. T. Halkidis, **N. Tsantalis**, A. Chatzigeorgiou, and G. Stephanides, "Architectural Risk Analysis of Software Systems based on Security Patterns," *IEEE Transactions on Dependable and Secure Computing*, vol. 5, no. 3, pp. 129-142, July-September 2008.
13. A. Chatzigeorgiou, **N. Tsantalis**, and I. Deligiannis, "An Empirical Study on Students' Ability to Comprehend Design Patterns," *Computers & Education*, vol. 51, no. 3, pp. 1007-1016, November 2008.
14. **N. Tsantalis**, A. Chatzigeorgiou, G. Stephanides, and S. T. Halkidis, "Design Pattern Detection Using Similarity Scoring," *IEEE Transactions on Software Engineering*, vol. 32, no. 11, pp. 896-909, November 2006. (top-6 cited papers published at TSE in 2006)

15. **N. Tsantalis**, A. Chatzigeorgiou, and G. Stephanides, "Predicting the Probability of Change in Object-Oriented Systems," *IEEE Transactions on Software Engineering*, vol. 31, no. 7, pp. 601-614, July 2005.

CONFERENCE PAPERS [RESEARCH TRACK]

1. M. Jodavi, **N. Tsantalis**, "Accurate Method and Variable Tracking in Commit History," *ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering* (ESEC/FSE), Singapore, Singapore, November 14-18, 2022. (AR: 22%, 99/449)
2. A. Ketkar, O. Smirnov, **N. Tsantalis**, D. Dig, and T. Bryksin, "Inferring and Applying Type Changes," pp. 1206-1218, *44th International Conference on Software Engineering* (ICSE), Pittsburgh, PA, USA, May 25-27, 2022. (AR: 26.2%, 197/751)
3. F. Coelho, **N. Tsantalis**, T. Massoni, and E. L. G. Alves, "An Empirical Study on Refactoring-Inducing Pull Requests," article no. 9, pages 1-12, *15th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement* (ESEM), Bari, Italy, October 11-15, 2021. (AR: 19.4%, 24/124)
4. D. J. Kim, **N. Tsantalis**, T.-H. Chen, and J. Yang, "Studying Test Annotation Maintenance in the Wild," pp. 62-73, *43rd International Conference on Software Engineering* (ICSE), Madrid, Spain, May 25-28, 2021. (AR: 22.4%, 138/615)
5. A. Ketkar, **N. Tsantalis**, and D. Dig, "Understanding Type Changes in Java," pp. 629–641, *28th ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering* (ESEC/FSE), Sacramento, California, United States, November 8-13, 2020. (AR: 28%, 101/360)
6. M. Mahmoudi, S. Nadi, and **N. Tsantalis**, "Are Refactorings to Blame? An Empirical Study of Refactorings in Merge Conflicts," pp. 151-162, *26th IEEE International Conference on Software Analysis, Evolution and Reengineering* (SANER), Hangzhou, China, February 24-27, 2019. (AR: 27%, 40/148)
7. **N. Tsantalis**, M. Mansouri, L. Eshkevari, D. Mazinanian, and D. Dig, "Accurate and Efficient Refactoring Detection in Commit History," pp. 483-494, *40th International Conference on Software Engineering* (ICSE), Gothenburg, Sweden, May 27 - June 3, 2018. (AR: 20.9%, 105/502, top-2 cited papers published at ICSE 2018)
8. D. Mazinanian, A. Ketkar, **N. Tsantalis**, and D. Dig, "Understanding the Use of Lambda Expressions in Java," *ACM SIGPLAN International Conference on Object-Oriented Programming, Systems, Languages, and Applications* (OOPSLA), Vancouver, Canada, October 25-27, 2017, 31 pages. (AR: 29.6%, 66/223, ACM SIGPLAN Distinguished Artifact Award)
9. **N. Tsantalis**, D. Mazinanian, and S. Rostami, "Clone Refactoring with Lambda Expressions," pp. 60-70, *39th International Conference on Software Engineering* (ICSE), Buenos Aires, Argentina, May 20-28, 2017. (AR: 17.1%, 68/398, ACM SIGSOFT Distinguished Paper Award)
10. D. Mazinanian, and **N. Tsantalis**, "Migrating Cascading Style Sheets to Preprocessors by Introducing Mixins," pp. 672-683, *31st IEEE/ACM International Conference on Automated Software Engineering* (ASE), Singapore, September 3-7, 2016. (AR: 19.1%, 57/298, selected for special issue of the Automated Software Engineering Journal)
11. D. Silva, **N. Tsantalis**, and M. T. Valente, "Why We Refactor? Confessions of GitHub Contributors," pp. 858-870, *24th ACM SIGSOFT International Symposium on the Foundations of Software Engineering* (FSE), Seattle, WA, USA, November 13-18, 2016. (AR: 27.1%, 74/273, ACM SIGSOFT Distinguished Paper Award & Distinguished Artifact Award, top-3 cited papers published at FSE 2016)

12. D. Mazinanian, and **N. Tsantalis**, "An Empirical Study on the Use of CSS Preprocessors," pp. 168-178, *23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering* (SANER), Osaka, Japan, March 14-18, 2016. (AR: 37.1%, 52/140, Best Paper Candidate Award)

13. D. Mazinanian, **N. Tsantalis**, and A. Mesbah, "Discovering Refactoring Opportunities in Cascading Style Sheets," pp. 489-499, *22nd ACM SIGSOFT International Symposium on the Foundations of Software Engineering* (FSE), Hong Kong, November 16-22, 2014. (AR: 22.3%, 61/273)

14. G. P. Krishnan, and **N. Tsantalis**, "Unification and Refactoring of Clones," pp. 104-113, *IEEE Conference on Software Maintenance, Reengineering and Reverse Engineering* (CSMR-WCRE), 2014 Software Evolution Week, Antwerp, Belgium, February 3-7, 2014. (AR: 31%, 27/87)

15. **N. Tsantalis**, V. Guana, E. Stroulia, and A. Hindle, "A Multidimensional Empirical Study on Refactoring Activity," pp. 132-146, *23rd Annual International Conference of the Centre for Advanced Studies on Collaborative Research* (CASCON), Toronto, Ontario, Canada, November 18-20, 2013. (AR: 34.3%, 24/70, Most Influential Paper Award)

16. N. Negara, **N. Tsantalis**, and E. Stroulia, "Feature Detection in Ajax-enabled Web Applications," pp. 154-163, *17th European Conference on Software Maintenance and Reengineering* (CSMR), Genova, Italy, March 5–8, 2013. (AR: 36.2%, 29/80)

17. M. Fokaefs, R. Mikhaiel, **N. Tsantalis**, E. Stroulia, and A. Lau, "An Empirical Study on Web Service Evolution," pp. 49-56, *9th IEEE International Conference on Web Services* (ICWS), Washington DC, USA, July 4-9, 2011. (AR: 13.7%, 38/277, top-3 cited papers published at ICWS 2011)

18. **N. Tsantalis**, and A. Chatzigeorgiou, "Ranking Refactoring Suggestions based on Historical Volatility," pp. 25-34, *15th European Conference on Software Maintenance and Reengineering* (CSMR), Oldenburg, Germany, March 1-4, 2011. (AR: 28.7%, 29/101)

19. M. Fokaefs, **N. Tsantalis**, A. Chatzigeorgiou, and J. Sander, "Decomposing Object-Oriented Class Modules Using an Agglomerative Clustering Technique," pp. 93-101, *25th IEEE International Conference on Software Maintenance* (ICSM), Edmonton, Alberta, Canada, September 20-26, 2009. (AR: 21.6%, 35/162)

20. **N. Tsantalis**, and A. Chatzigeorgiou, "Identification of Extract Method Refactoring Opportunities," pp. 119-128, *13th European Conference on Software Maintenance and Reengineering* (CSMR), Kaiserslautern, Germany, March 24-27, 2009. (AR: 31.4%, 22/70, IEEE Computer Society TCSE Most Influential Paper Award)

Conference Papers [Invited]

1. **N. Tsantalis**, T. Chaikalis, and A. Chatzigeorgiou, "Ten Years of JDeodorant: Lessons Learned from the Hunt for Smells," pp. 4-14, *25th IEEE International Conference on Software Analysis, Evolution and Reengineering* (SANER), Campobasso, Italy, March 20-23, 2018. (Most Influential Paper Retrospective)

Conference Papers [ERA/NIER Track]

1. G. Sierra, A. Tahmid, E. Shihab, and **N. Tsantalis**, "Is Self-Admitted Technical Debt a Good Indicator of Architectural Divergences?," pp. 534-543, *26th IEEE International Conference on Software Analysis, Evolution and Reengineering* (SANER), Hangzhou, China, February 24-27, 2019.

2. S. Rostami, L. Eshkevari, D. Mazinanian, and **N. Tsantalis**, "Detecting Function Constructors in JavaScript," pp. 488-492, *32nd IEEE International Conference on Software Maintenance and Evolution* (ICSME), Raleigh, North Carolina, USA, October 2-10, 2016. (AR: 34.1%, 14/41)

3. G. Bavota, S. Panichella, **N. Tsantalis**, M. Di Penta, R. Oliveto, and G. Canfora, "Recommending Refactorings based on Team Co-Maintenance Patterns," pp. 337-342, *29th IEEE/ACM International Conference on Automated Software Engineering* (ASE), Västerås, Sweden, September 15-19, 2014. (AR: 24.3%, 55+27/337)

4. G. P. Krishnan, and **N. Tsantalis**, "Refactoring Clones: An Optimization Problem," pp. 360-363, *29th IEEE International Conference on Software Maintenance* (ICSM), Eindhoven, the Netherlands, September 22-28, 2013. (AR: 42.8%, 30/70)

5. G. Kniesel, A. Binun, P. Hegedűs, L. J. Fülöp, A. Chatzigeorgiou, Y.-G. Guéhéneuc, and **N. Tsantalis**, "DPDX - Towards a Common Result Exchange Format for Design Pattern Detection Tools," pp. 232-235, *14th European Conference on Software Maintenance and Reengineering* (CSMR), Madrid, Spain, March 15-18, 2010. (AR: 38.7%, 21+10/80)

Conference Papers [Tool Demonstration]

1. O. Smirnov, A. Ketkar, T. Bryksin, **N. Tsantalis**, and D. Dig, "IntelliTC: Automating Type Changes in IntelliJ IDEA," *44th International Conference on Software Engineering Companion* (ICSE), Pittsburgh, PA, USA, May 25–27, 2022.

2. H. Atwi, B. Lin, **N. Tsantalis**, Y. Kashiwa, Y. Kamei, N. Ubayashi, G. Bavota, and M. Lanza, "PyRef: Refactoring Detection in Python Projects," *21st IEEE International Working Conference on Source Code Analysis and Manipulation* (SCAM), Engineering Track, Luxembourg City, Luxembourg, September 27-28, 2021.

3. L. Eshkevari, D. Mazinanian, S. Rostami, and **N. Tsantalis**, "JSDeodorant: Class-awareness for JavaScript programs," pp. 71-74, *39th International Conference on Software Engineering* (ICSE), Buenos Aires, Argentina, May 20-28, 2017. (AR: 31.6%, 18/57)

4. D. Mazinanian, and **N. Tsantalis**, "CSSDev: Refactoring duplication in Cascading Style Sheets," pp. 63-66, *39th International Conference on Software Engineering* (ICSE), Buenos Aires, Argentina, May 20-28, 2017. (AR: 31.6%, 18/57)

5. D. Mazinanian, **N. Tsantalis**, R. Stein, and Z. Valenta, "JDeodorant: Clone Refactoring," pp. 613-616, *38th International Conference on Software Engineering* (ICSE), Austin, Texas, USA, May 14-22, 2016. (AR: 32.1%, 18/56)

6. **N. Tsantalis**, N. Negara, and E. Stroulia, "WebDiff: A Generic Differencing Service for Software Artifacts," pp. 586-589, *27th IEEE International Conference on Software Maintenance* (ICSM), Williamsburg, VA, USA, September 25-30, 2011.

7. M. Fokaefs, **N. Tsantalis**, E. Stroulia, and A. Chatzigeorgiou, "JDeodorant: Identification and Application of Extract Class Refactorings," pp. 1037-1039, *33rd International Conference on Software Engineering* (ICSE), Waikiki, Honolulu, Hawaii, USA, May 21-28, 2011. (AR: 36.7%, 22/60)

8. **N. Tsantalis**, T. Chaikalis, and A. Chatzigeorgiou, "JDeodorant: Identification and Removal of Type-Checking Bad Smells," pp. 329-331, *12th European Conference on Software Maintenance and Reengineering* (CSMR), Athens, Greece, April 1-4, 2008. (Most Influential Paper Award)

9. M. Fokaefs, **N. Tsantalis**, and A. Chatzigeorgiou, "JDeodorant: Identification and Removal of Feature Envy Bad Smells," pp. 519-520, *23rd IEEE International Conference on Software Maintenance* (ICSM), Paris, France, October 2-5, 2007.

Awards/Distinctions

Most Influential Paper Award at CASCON 2023
IEEE Computer Society TCSE Most Influential Paper Award at SANER 2019
Most Influential Paper Award at SANER 2018
ACM SIGSOFT Distinguished Paper Award at ICSE 2017
ACM SIGPLAN Distinguished Artifact Award at OOPSLA 2017
ACM SIGSOFT Distinguished Paper Award at FSE 2016
ACM SIGSOFT Distinguished Artifact Award at FSE 2016
Best Paper Candidate Award at SANER 2016

Distinguished Reviewer Award *39th IEEE International Conference on Software Maintenance and Evolution* ICSME 2023
Distinguished Reviewer Award *37th IEEE/ACM International Conference on Automated Software Engineering* ASE 2022
Distinguished Reviewer Award *30th IEEE/ACM International Conference on Program Comprehension* ICPC 2022
Distinguished Reviewer Award *17th International Conference on Mining Software Repositories* MSR 2020
Outstanding Reviewer Status *Information & Software Technology* 2014-2015

Supervision

Supervised Students

	Name	Role	Level	Start	End
1	Moein Nasr	Supervisor	Ph.D.	Sep'24	–
2	Victor Guerra Veloso	Co-supervisor	Ph.D.	Sep'22	–
3	Pouria Alikhani Fard	Supervisor	Ph.D.	Jan'22	–
4	Pedram Nouri	Supervisor	Master's	Sep'21	Nov'23
5	Tayeeb Hasan	Supervisor	Master's	Sep'21	Aug'23
6	Palash Borhan Uddin	Supervisor	Master's	Jan'21	Jun'23
7	Diptopol Dam	Supervisor	Master's	Sep'20	May'23
8	Mosabbir Khan Shiblu	Supervisor	Master's	Sep'19	Nov'22
9	Mehran Jodavi	Supervisor	Master's	Sep'19	Nov'21
10	Sadegh Aalizadeh	Supervisor	Master's	May'19	Aug'21
11	Tahmid Ahmad	Supervisor	Master's	Sep'16	Nov'19
12	Matin Mansouri	Supervisor	Master's	Jan'16	Jan'18
13	Mehran Hassani	Co-supervisor	Master's	Jan'16	Mar'18
14	Laleh M. Eshkevari	Supervisor	Postdoc	Feb'16	Aug'17
15	Davood Mazinanian	Supervisor	Ph.D.	May'13	Aug'17
16	Asif Al-Waqfi	Supervisor	Master's	Sep'15	Mar'17
17	Shahriar Rostami	Supervisor	Master's	Sep'14	Aug'16
18	Guo Qiao	Supervisor	Master's	Sep'13	Apr'15
19	Giri Panamoottil Krishnan	Supervisor	Master's	Jan'13	Apr'14
	Undergraduate students				
20	Hassan Mansour	Supervisor	NSERC USRA	May'19	Aug'19
21	Zackary Valenta	Supervisor	NSERC USRA	May'14	Aug'14
22	Kimberly Dextras-Romagnino	Supervisor	NSERC USRA	May'13	Aug'13
23	Raphael Stein	Supervisor	NSERC USRA	May'13	Aug'13

Service

Journal Board Member

- Associate Editor of the IEEE Transactions on Software Engineering Editorial Board (2024-present)
- Journal of Systems and Software Editorial Board (2023-present)
- IEEE Transactions on Software Engineering Review Board (2018-2023)
- Guest Editor of the Special Issue on Software Tools at 29th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER 2022)
- Guest Editor of the Special Issue on Source Code Analysis and Manipulation 2020

General Chair

- 3rd International Workshop on Refactoring (IWoR'2019), co-located with ICSE'2019

Program Co-Chair

- 37th IEEE International Conference on Software Maintenance and Evolution (ICSME'2021)
- 20th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM'2020)

Track Co-Chair

- 29th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'2022) [Tool Demonstration Track]
- 29th IEEE/ACM International Conference on Program Comprehension (ICPC'2021) [Replications and Negative Results Track]
- 28th IEEE/ACM International Conference on Program Comprehension (ICPC'2020) [Tool Demonstration track]
- 19th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM'2019) [Engineering track]
- 26th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'2019) [ERA track]
- 24th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'2017) [Tool Demonstration track]
- 22nd IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'2015) [ERA track]

Program Committee Member

2024 [Track]
- IEEE International Conference on Software Maintenance and Evolution (ICSME) [Research]
- IEEE/ACM International Conference on Program Comprehension (ICPC) [Replications and Negative Results Track]
- The IDE Workshop (IDE), co-located with ICSE

2023 [Track]
- ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) [Research]
- IEEE/ACM International Conference on Software Engineering (ICSE) [NIER]
- IEEE International Conference on Software Maintenance and Evolution (ICSME) [Research]
- IEEE/ACM International Conference on Program Comprehension (ICPC) [Replications and Negative Results]

2022 [Track]
- IEEE/ACM International Conference on Automated Software Engineering (ASE) [Research]
- IEEE/ACM International Conference on Program Comprehension (ICPC) [Research]
- International Conference on Mining Software Repositories (MSR) [Registered Reports]

2020 [Track]
- IEEE International Conference on Software Maintenance and Evolution (ICSME) [Research]
- International Conference on Mining Software Repositories (MSR) [Research]

2019 [Track]
- IEEE/ACM International Conference on Program Comprehension (ICPC) [Research]

2018 [Track]
- IEEE International Conference on Software Maintenance and Evolution (ICSME) [Research]
- ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) [ACM Student Research Competition]
- International Workshop on Refactoring (IWoR)

2017 [Track]
- IEEE/ACM International Conference on Automated Software Engineering (ASE) [Research]
- IEEE International Conference on Software Maintenance and Evolution (ICSME) [Research]
- IEEE International Conference on Program Comprehension (ICPC) [Research]
- International Workshop on API Usage and Evolution (WAPI)

2016 [Track]
- IEEE International Conference on Software Maintenance and Evolution (ICSME) [Research]
- IEEE International Conference on Program Comprehension (ICPC) [Research]
- IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER) [ERA]
- International Workshop on Refactoring (IWoR)

2015 [Track]
- International Conference on Web Engineering (ICWE) [Web user interfaces]
- IEEE International Conference on Program Comprehension (ICPC) [Research]
- IEEE International Conference on Program Comprehension (ICPC) [ERA]

2014 [Track]
- Asia-Pacific Software Engineering Conference (APSEC) [Research]
- IEEE International Conference on Software Maintenance and Evolution (ICSME) [ERA]
- IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM) [Research]
- IEEE Conference on Software Maintenance, Reengineering and Reverse Engineering (CSMR-WCRE) [Research]

2013 [Track]
- International Conference on Software Engineering (ICSE) [Formal Research Demonstrations]
- IEEE International Conference on Program Comprehension (ICPC) [ERA]
- European Conference on Software Maintenance and Reengineering (CSMR) [Research]
- IEEE International Conference on Software Maintenance (ICSM) [ERA]

2012 [Track]
- European Conference on Software Maintenance and Reengineering (CSMR) [Research]
- IEEE International Conference on Software Maintenance (ICSM) [ERA]

GRANT REVIEWER
- NSERC Discovery Grant 2023 (1 application)
- NSERC Discovery Grant 2021 (1 application)
- NSERC Discovery Grant 2019 (1 application)
- NSERC Discovery Grant 2016 (1 application)
- NSERC Discovery Grant 2015 (1 application)
- NSERC Collaborative Research and Development Grant 2015 (1 application)
- NSERC Discovery Grant 2013 (2 applications)

KEYNOTES
- "Source Code Diff Revolution," Consortium for Software Engineering Research (CSER) 2024 Spring Meeting, June 11, 2024, Kingston, Ontario, Canada.
- "Refactoring mining - The key to unlock software evolution," Fifth International Workshop on Software Refactoring, co-located with the 36th IEEE/ACM International Conference on Automated Software Engineering (ASE'2021), November 14, 2021.

INVITED TALKS
- "Code Smell Research: History and Future Directions," Second PLOW Installment, École Polytechnique de Montréal, Montreal, QC, Canada, March 5, 2014.

- "Tutorial on JDeodorant and Code Smell Refactoring," Second PLOW Installment, École Polytechnique de Montréal, Montreal, QC, Canada, March 4, 2014.
- "Preventive Software Maintenance: The Past, the Present, the Future," Consortium for Software Engineering Research (CSER'2013) Spring Meeting, New Faculty Keynote, Montreal, QC, Canada, June 18, 2013.

Teaching

Teaching Experience

Course title	Course number	Students	Offered
Software Refactoring	SOEN 6491/2 SS	43	Fall 2024
Software Refactoring	SOEN 6491/4 D	42	Winter 2024
Software Refactoring	SOEN 6491/4 D	25	Winter 2023
Capstone SE Design Project	SOEN 490/3 SS & TT	171	Fall 2021-Winter 2022
Capstone SE Design Project	SOEN 490/3 SS & TT	163	Fall 2020-Winter 2021
Software Refactoring	SOEN 6491/2 SS	23	Fall 2020
Software Architecture II	SOEN 344/4 S	127	Winter 2020
SE Team Design Project	SOEN 390/4 S	167	Winter 2020
Software Refactoring	SOEN 6491/2 SS	41	Fall 2019
Software Architecture II	SOEN 344/4 S	163	Winter 2018
Software Refactoring	SOEN 6491/2 DD	50	Fall 2017
SE Team Design Project	SOEN 390/4 S	93	Winter 2017
Software Refactoring	SOEN 6491/2 DD	31	Fall 2016
SE Team Design Project	SOEN 390/4 S	62	Winter 2016
Software Refactoring	SOEN 691/2 DD	27	Fall 2015
Software Measurement	SOEN 6611/1 AA	93	Summer 2015
SE Team Design Project	SOEN 390/4 S	55	Winter 2015
Software Refactoring	SOEN 691C/2 DD	47	Fall 2014
Object-Oriented Programming II	COMP 249/1 CC	67	Summer 2014
Software Measurement	SOEN 6611/4 DD	32	Winter 2014
Software Refactoring	SOEN 691C/2 DD	27	Fall 2013
Object-Oriented Programming II	COMP 249/2 D	60	Fall 2013
Software Measurement	SOEN 6611/4 DD	22	Winter 2013
Object-Oriented Programming II	COMP 249/2 D	46	Fall 2012