



CURRICULUM VITAE

NAME:

LETHBRIDGE, Timothy, P.Eng, I.S.P., FCIPS Professor

DEGREES AND CREDENTIALS:

Degrees:

1994 PhD Computer Science, University of Ottawa, Canada, Ontario
1987 Masters of Computer Science Computer Science, University of New Brunswick, Canada, New Brunswick
1985 Bachelor of Computer Science Computer Science, University of New Brunswick, Canada, New Brunswick

Credentials:

Professional Engineer, Professional Engineers Ontario
Information Systems Professional, Canadian Information Processing Society

EMPLOYMENT HISTORY:

Academic Work Experience:

2010 – Vice-Dean, Governance, Professor, Faculty of Engineering, University of Ottawa, Canada, Ontario
2005 – Professor, Professor, Electrical Engineering and Computer Science, University of Ottawa, Canada, Ontario
2005 – 2005 Acting Vice Dean (Academic), Professor, Faculty of Engineering, University of Ottawa, Canada, Ontario
2001 – 2005 Associate Professor, Associate Professor, School of Information Technology and Engineering, University of Ottawa, Canada, Ontario
1994 – 2001 Assistant Professor, Assistant Professor, School of Information Technology and Engineering, University of Ottawa, Canada, Ontario
1991 – 1994 Part Time Professor, Lecturer, Computer Science, University of Ottawa, Canada, Ontario
1986 – 1986 Part Time Professor, Lecturer, Computer Science, University of New Brunswick, Canada, New Brunswick

Non-academic Work Experience:

1987 – 1989 Member of Scientific Staff, Bell-Northern Research (Canada)
1982 – 1985 Programmer, Government of New Brunswick, Canada, New Brunswick

HONOURS:

2016 IEEE Computer Society TCSE Outstanding Educator Award, IEEE
2015 Best paper Award - SDL Forum 2015, For: *Braun, E., Amyot, D., Lethbridge, TC. “Generating Software Documentation in Use Case Maps from Filtered Execution Traces”, United Kingdom
2010 Cascon High Impact Paper Award for one of best 14 out of 425 papers published in the first decade of Cascon, for Singer, J., Lethbridge, T.C., Vinson, N, and Anquetil, N (1997) "An Examination of Software Engineering Work Practices, IBM Cascon, Canada

- 2010 Gary Hadford Professional Achievement Award, “[to] CIPS members ... recognized by their peers for their integrity, high degree of competence, and outstanding achievements in fields related to information technology, Canadian Information Processing Society, Canada
- 2009 WCRE Award for Most Influential Paper from 10 years before, for Anquetil, N., and Lethbridge, T.C. (1999), “Experiments with Clustering as a Software Remodularization Method”, Working Conference on Reverse Engineering, pp 235-255, Working Conference on Reverse Engineering, France
- 2006 Outstanding Contribution Award, IEEE, For contributions to SE2004, IEEE, United States
- 2004 The Mather Premium, Prize given once a year for a paper published in an IEE Journal on computing. For J11. Anquetil, N., and Lethbridge, T.C. (2003), “A Comparative Study of Clustering Algorithms and Abstract Representations for Software Remodularization”, IEE Proceedings - Software, pp. 185-201, IEE, United Kingdom

SCHOLARLY and PROFESSIONAL ACTIVITIES:

Event Administration

- 2005 – General Chair, Conference on Software Engineering Education and Training
- 2013 – 2015 General Chair, Models 2015: ACM/IEEE 18th International Conference on Model Driven Engineering Languages and Systems

Editorial Activities

- 2015 – 2025 Member of Editorial Board, Software and Systems Modeling (Springer)

Journal Review Activities

- 2015 – Reviewer, Applied Computing and Informatics
- 2015 – Reviewer, Science of Computer Programming
- 2015 – Reviewer, International Journal of Parallel, Emergent and Distributed Systems
- 2011 – Reviewer, Empirical Software Engineering
- 2009 – Reviewer, Journal of Systems and Software
- 2009 – Reviewer, Information and Software Technology
- 2009 – Reviewer, IEEE Software
- 2009 – Reviewer, Software and Systems Modeling
- 2013 – 2013 Reviewer, ACM Transactions on Computing Education
- 2012 – 2013 Reviewer, IEEE Transactions on Education
- 2009 – 2013 Reviewer, Communications of the ACM
- 2009 – 2013 Reviewer, Journal of Software: Evolution and Process
- 2009 – 2012 Reviewer, IEEE Computer
- 2009 – 2012 Reviewer, IET Software
- 2009 – 2012 Reviewer, Software Practice and Experience
- 2009 – 2012 Reviewer, IEEE Transactions on Software Engineering

Conference Review Activities

- 2009 – Reviewer, Conference on Software Engineering and Training (CSEE&T)
- 2009 – Reviewer, Models Education Symposium
- 2009 – Reviewer, Cascon
- 2009 – 2014 Reviewer, ACM/IEEE Conference on Model-Driven Engineering Languages and Systems (Models)

Organizational Review Activities

- 2015 – 2015 University of Manitoba (Academic), External Evaluator, Evaluated Graduate program. Included site visit
- 2013 – 2013 University of Ontario Institute of Technology, Ontario, Canada, Academic External Evaluator, Evaluated Computer Science undergraduate program, according to provincial requirements. Included site visit
- 2012 – 2012 Seneca College for Applied Arts and Technology, Ontario, Canada, Academic External Evaluator, Reviewed and evaluated Software Development academic program
- 2005 – 2015 Canadian Information Processing Society (Not for Profit), Accreditation Visitor, Computer Science accreditation visits to St Mary's University, York University, University of Waterloo, Concordia

University, Dalhousie University, Acadia University, University of Saskatchewan, University of Manitoba, Queens University

MEMBERSHIPS

Committee Memberships

2018 – Committee Member, *Vice Chair, Computer Science Accreditation Council*, Canadian Information Processing Society
 2018 – Committee Member, *Board Member, CIPS National Board*, Canadian Information Processing Society
 2018 – Committee Member, *Board of Directors*, CIPS Ontario
 2008 – 2014 Chair, *Computer Science Accreditation Council*, Canadian Information Processing Society, Canada

Other Memberships

2008 – 2025 P. Eng, Professional Engineers Ontario, Canada
 2006 – 2025 Certified Member, Canadian Information Processing Society, Canada
 1996 – 2025 Senior Member, ACM, United States
 1989 – 2024 Senior Member, IEEE, United States

SUPERVISIONS:

Summary:

Completed

Principal Supervisor 11 Doctorate
 11 Master's Thesis
 3 Master's non-Thesis

Co-Supervisor 36 Bachelor's
 4 Doctorate
 6 Master's Thesis

In Progress

Principal Supervisor 4 Doctorate

Supervision detail:

Emmanuel Ayeleso (Doctorate), Computer Science *Modeling for Big Data*, Principal Supervisor, January 2019 -

Abdulaziz Algablan (Doctorate), Computer Science *Product Lines in Umple*, Principal Supervisor, September 2016 - December 2020

Aliaa Alghamdi (Doctorate), PhD. in E-Business *Enterprise Architecture in Higher Education*, Principal Supervisor, January 2016 -

Amid Zakariapour (Master's Thesis), Computer Science *Real-time Distributed Modeling in Umple*, Co-Supervisor, September 2015 - August 2017

Robert Weisman (Doctorate), PhD in E-Business *A Leadership Approach to Successful Digital Transformation Using Enterprise Architecture*, Principal Supervisor, September 2014 - December 2019

Sultan Eid Almaghawhi (Doctorate), Computer Science *Model-Driven Testing in Umple*, Principal Supervisor, September 2013 - March 2020

Adesina Opeyemi (Doctorate), Computer Science *Integrating Formal Methods With Model-Driven Engineering*, Co-Supervisor, September 2013 - July 2017

Abdelzad, Vahdat (Doctorate), Electrical Engineering *Promoting Traits into Model-Driven Development*, Principal Supervisor, May 2013 - May 2017

Mahmoud Hussein Orabi (Doctorate), Computer Science *Facilitating the Representation of Composite Structure, Active objects, Code Generation, and Software Component Descriptions in the Umple Model-Oriented Programming Language*, Principal Supervisor, January 2012 - July 2017

Ahmed Orabi (Doctorate), Computer Science *Multi-Modal Technology for User Interface Analysis including Mental State Detection and Eye Tracking Analysis*, Principal Supervisor, January 2012 - July 2017

Aliaa Alghamdi (Master’s Thesis), Systems Science *Extensions to Umple for Interconnected State Machines*, Co-Supervisor, January 2012 - January 2015

Miguel Garzon (Doctorate), Computer Science *Umplification: Incremental reverse engineering from source code to model-oriented programs in Umple*, Principal Supervisor, September 2010 - July 2015

Sultan Eid Almagthawi (Master’s Thesis), Computer Science *Generation of C++ From the Umple Model-Oriented Programming Technology*, Principal Supervisor, September 2010 - September 2013

Hamoud Aljamaan (Doctorate), Computer Science *Model-Oriented Tracing Language: Producing Execution Traces from Tracepoints Injected into Code Generated from UML Models*, Principal Supervisor, January 2010 - September 2015

Omar Bahy Badreddin (Doctorate), Computer Science *A Manifestation of Model-Code Duality: Facilitating the Representation of State Machines in the Umple Model-Oriented Programming Language*, Principal Supervisor, December 2007 - March 2012

Ali Fatolahi (Doctorate), Computer Science *An Abstract Meta-Model for Model Driven Development of Web Applications Targeting Multiple Platforms*, Co-Supervisor, May 2006 - August 2012

Edna Braun (Doctorate), Computer Science *Reverse engineering behavioral models by filtering out utilities from execution traces*, Co-Supervisor, September 2002 - September 2013

COURSES:

Undergraduate Courses

ELG/SEG/CSI2911 Professional Practice in Electrical Engineering and Computer Science University of Ottawa, Ontario:

January, 2010 - April, 2014

SEG2105 Introduction to Software Engineering University of Ottawa, Ontario:

January, 1991 - December, 2014

SEG4110 Advanced Software Design and Reengineering University of Ottawa, Ontario:

May, 1994 - December, 2015

SEG4910/SEG4911 Capstone Project in Software Engineering University of Ottawa, Ontario:

September, 2000 - April, 2020

Graduate Courses

CSI5122 Software Usability University of Ottawa, Ontario:

January, 1999 - April, 2019

LIFETIME FUNDING:

- Total amount of funding received.....\$2,566,348.00
 As Principal Investigator.....\$2,100,998.00

EXTERNAL RESEARCH FUNDING:

Date(s)	Source	Type	Investigator	Amount
2016/5 - 2018/5	Mitacs and KDM Analytics <u>Title:</u> Mitacs Accelerate: Reconstructing	<u>Type:</u> Grant <u>Purpose:</u>	<u>My Role:</u> Principal Investigator <u>Co-applicant:</u>	Funding Total: \$75,000

	DoDAF (Department of Defense Architecture Framework) compliant high level views from information systems <u>Program:</u> Mitacs Accelerate	Operating	Alvine Boaye-Belle	
2016/4 - 2021/3	Natural Sciences and Engineering Research Council of Canada (NSERC) <u>Title:</u> Discovery Grant <u>Program:</u> Discovery Grants	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$130,000
2011/9 - 2016/9	Ontario Research Fund, General Motors and IBM <u>Title:</u> ORF Grant - Model-Based Software Engineering <u>Program:</u> Model-Based Software Engineering	<u>Type:</u> Grant	<u>My Role:</u> Co-investigator <u>Principal Investigator:</u> Joanne Atlee	Funding Total: \$381,000
2011/4 - 2016/3	NSERC <u>Title:</u> Discovery Grant <u>Program:</u> Discovery Grants	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$145,000
2009/5 - 2012/4	Ericsson and IBM and NSERC <u>Title:</u> CRD - Tracing in software engineering <u>Program:</u> CRD	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Co-investigator <u>Principal Investigator:</u> Michel Dagenais	Funding Total: \$79,350

INTERNAL RESEARCH FUNDING:

Date(s)	Source	Type	Investigator	Amount
2018/7 - 2020/6	University of Ottawa <u>Title:</u> Internal Stipend <u>Program:</u> Research Stipend 12K per year	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$24,000
2014/7 - 2017/6	University of Ottawa <u>Title:</u> Internal Stipend	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$22,500

	<u>Program:</u> Research Stipend 7.5K per year			
2008/7 - 2014/6	University of Ottawa <u>Title:</u> Internal Stipend <u>Program:</u> Research Stipend 2.5K per year	<u>Type:</u> Grant <u>Purpose:</u> Operating	<u>My Role:</u> Principal Investigator	Funding Total: \$15,000

CONTRIBUTIONS:**Life-time summary count according to the following categories:**

Books Authored.....	3
Refereed Journal Articles	26
Conference Publications.....	132
Refereed Chapters In Books.....	10
Reports	4
Intellectual Properties.....	1
Other Contributions.....	8

PUBLICATIONS:Refereed Chapters In Books

- Lethbridge, TC. (2015, October). Usable Software Tools: Winding Paths of Involvement in Cascon and CAS. In Litoiu, M., Lyons, K., Müller, H., Ng, J (Eds.), *CAS and CASCON Honouring 25 Years of IBM Research and Innovation* (pp.). Toronto, Canada: IBM. doi:<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.700.3478&rep=rep1&type=pdf#page=88>

Refereed Journal Articles

- *Husseini Orabi M, *Husseini Orabi M, Lethbridge TC. (2020, January). Umple-TL: A Model-Oriented, Dependency-Free Text Emission Tool. *Communications in Computer and Information Science*, 1161, 127-155. doi:10.1007/978-3-030-37873-8_6
Extended version of Modelsward Article
- Agner, L.T.W., Lethbridge, T.C., and Soares, I.W. (2019, September). Student experience with software modeling tools. *Software & Systems Modeling*, 18(5), 3025-3047. doi:10.1007/s10270-018-00709-6
- *Husseini Orabi M., *Husseini Orabi A., Lethbridge T.C. (2019, February). A Textual Notation for Modeling and Generating Code for Composite Structure. *Communications in Computer and Information Science*, 991, 355-379. doi:10.1007/978-3-030-11030-7_16
Extended version of Modelsward Article
- *Adesina, O, Lethbridge, T.C., Somé, S., *Abdelzad, V., and *Boaye Belle, A. (2018, December). Improving Formal Analysis of State Machines with Particular Emphasis on And-Cross Transitions. *Computer Languages, Systems and Structures*, 54. doi:10.1016/j.cl.2017.12.001
- *Boaye Belle, A, Lethbridge, T.C., *Garzón, M., *Adesina, O. (2018, April). Design and implementation of distributed expert systems: on a control strategy to manage the execution flow of rule activation. *Expert Systems with Applications*, 96, 129-148. doi:10.1016/j.eswa.2017.11.033
- *Abdelzad V., Lethbridge T.C. (2015, October). Promoting Traits into Model-Driven Development. *Systems and Software Modeling*. doi:<http://rdcu.be/mSAc>
- *Forward, A, *Badreddin, O, Lethbridge, TC, *Solano, J. (2012, June). Model-driven rapid prototyping with Umple. *Software: Practice and Experience*, 42(7), 781-797. doi:<http://dx.doi.org/10.1002/spe.1155>
- *Fatolahi, A, Somé, SS, Lethbridge, TC. (2012, June). A Meta-Model for Model-Driven Web Development. *International Journal of Software and Informatics*, 6(2), 125-162.

Conference Publications

132. Lethbridge, T, and *Alghamdi, A. (2019, November). Framework, Model and Tool Use in Higher Education Enterprise Architecture: An International Survey. In *Cascon* (p. 138-147) ACM.
131. *Adesina, O., Lethbridge, T.C., Somé, S. (2019, September). Optimizing Hierarchical, Concurrent State Machines in Umple for Model Checking. In *16th Workshop on Model Driven Engineering, Verification and Validation (MoDeVVA) 2019* (p. 523-531) IEEE. doi:10.1109/MODELS-C.2019.00082
130. Lethbridge, TC. (2019, September). UmpleOnline as a Testbed for Modeling Empirical Studies: A Position Paper. In *Fourth International Workshop on Human Factors in Modeling (HuFaMo) 2019* (p. 412-413) IEEE. doi:10.1109/MODELS-C.2019.00064
129. *Boaye Belle, A., Lethbridge, T.C., Kpodjedo, S., Adesina, O., Garzón, M. (2019, September). A novel approach to measure confidence and uncertainty in assurance cases. In *9th International Model-Driven Requirements Engineering Workshop (MoDRe) 2019* IEEE. (In Press)
128. Lethbridge, TC. (2019, June). Capstone Software Engineering Students Can Develop a High-Quality Complex System: A Case Study With Umple. In *Canadian Engineering Education Association Conference*. doi:https://ojs.library.queensu.ca/index.php/PCEEA/article/view/13730
127. *Husseini-Orabi, M., *Husseini-Orabi, A., Lethbridge, TC. (2019, January). Umple as a Template Language (Umple-TL). In *7th International Conference on Model-Driven Engineering and Software Development, MODELSWARD INSTCC*. doi:10.5220/0007382000980106
126. Badreddin, O., Khandoker, R., Forward, A., Masmali, O., Lethbridge, T.C. (2018, October 15). A decade of software design and modeling: A survey to uncover trends of the practice. In *Proceedings of the 21th ACM/IEEE International Conference on Model Driven Engineering Languages and Systems* (p. 245-255). doi:10.1145/3239372.3239389
125. Lethbridge, T.C, *Algablan, A. (2018, October 15). Using umple to synergistically process features, variants, UML models and classic code. In *International Symposium on Leveraging Applications of Formal Methods* (p. 69-88) Springer. doi:10.1007/978-3-030-03418-4_5
124. Lethbridge, T.C. and *Algablan, A. (2018, October). Applying Umple to the Rover Control Challenge Problem: A Case Study in Model-Driven Engineering. In *MDETools, Models 2018* (p. 386-395) CEUR. doi:http://ceur-ws.org/Vol-2245/mdetools_paper_9.pdf
123. Sturm, A., Lethbridge, TC. (2018, May 15). Poster: Are Our Students Engaged in Their Studies? Professional Engagement vs. Study Engagement. In *2018 IEEE/ACM 40th International Conference on Software Engineering: Companion (ICSE-Companion)* (p. 149-150) IEEE. doi:https://ieeexplore.ieee.org/abstract/document/8449474
122. *Husseini-Orabi, M., *Husseini-Orabi, A., and Lethbridge, T.C. (2018, January). Component-Based Modeling in Umple. In *Modelsward 2018* (p. 247-255) SCITEPRESS. doi:https://www.researchgate.net/profile/Timothy_Lethbridge/publication/322879081_Component-based_Modeling_in_Umple/links/5a7b01550f7e9b41dbd725f2/Component-based-Modeling-in-Umple.pdf
121. *Husseini-Orabi, M., *Husseini-Orabi, A., and Lethbridge, T.C. (2018, January). Concurrent Programming using Umple. In *Modelsward 2018* (p. 575-585) SCITEPRESS. doi:https://www.researchgate.net/profile/Timothy_Lethbridge/publication/322870960_Concurrent_Programming_using_Umple/links/5a7b01c0aca2722e4df60555/Concurrent-Programming-using-Umple.pdf
120. Lethbridge, T.C., Peyton, L., Amyot, D., Somé, S. (2017, October). The University of Ottawa Undergraduate Software Engineering Program: Leading and Innovative. In *CSEE&T 2017* (p. 5-6) IEEE. doi:10.1109/CSEET.2017.12
119. *Agner, Luciane T. W. and Lethbridge, T.C. (2017, September). A Survey of Tool Use in Modeling Education. In *Models 2017* (p. 303-322) IEEE Computer Society. doi:10.1109/MODELS.2017.1
118. Lima, E., *Resende, A., Lethbridge, TC. (2016, August 21). The Uncomfortable Discrepancies of Software Metric Thresholds and Reference Values in Literature. In *ICSEA 2016, The Eleventh International Conference on Software Engineering Advances* (p. 1-9). doi:http://www.thinkmind.org/index.php?view=article&articleid=icsea_2016_1_10_10013

117. *Adesina O, Somé, S, Lethbridge TC. (2016, October). Modeling State Diagrams with And-Cross Transitions. In *MoDeVVA 2016, Models 2016* CEUR 1713. doi:http://ceur-ws.org/Vol-1713/MoDeVVA_2016_paper_6.pdf
116. *Abdelzad, V, Lethbridge, TC, Hosseini, M. (2016, June 15). The role of semiotic engineering in software engineering. In *Proceedings of the 5th International Workshop on Theory-Oriented Software Engineering* (p. 15-21). doi:10.1145/2897134.2897136
115. *Husseini Orabi, A, *Husseini Orabi, M, Lethbridge, TC. (2016, June 15). Psychophysiological observing and analysis tool for user experience. In *Proceedings of the 1st International Workshop on Emotion Awareness in Software Engineering* (p. 22-25). doi:10.1145/2897000.2897004
114. *Adesina, O, Lethbridge, TC, Somé, S. (2016, June 15). A fully automated approach to discovering non-determinism in state machine diagrams. In *10th International Conference on the Quality of Information and Communications Technology, Portugal*. doi:10.1109/QUATIC.2016.021
113. Lethbridge, TC, *Abdelzad, V, *Husseini Orabi, M, *Husseini Orabi, A, *Adesina, O. (2016, June 15). Merging modeling and programming using Umple. In *International Symposium on Leveraging Applications of Formal Methods* (p. 187-197). doi:10.1007/978-3-319-47169-3_14
112. Badreddin, O., *Abdelzad, V., Lethbridge, TC, Elaasar, M. (2016, June 15). fSysML: Foundational Executable SysML for Cyber-Physical System Modeling. In *GEMOC workshop*. doi:http://ceur-ws.org/Vol-1731/paper_3.pdf
111. George, A., Lethbridge, TC., Peyton, L. (2016, June). Graduate Attribute Assessment In Software Engineering Program At University Of Ottawa – Continual Improvement Process. In *2016 Canadian Engineering Education Conference*. doi:https://ojs.library.queensu.ca/index.php/PCEEA/article/view/6484/6032
110. *Husseini Orabi, M., *Husseini Orabi, A., Lethbridge, TC. (2016, January). Umple as a component-based language for the development of real-time and embedded applications. In *Modelsward 2016* (p. 282-291) Scitepress. doi:https://ieeexplore.ieee.org/abstract/document/7954371
109. *Aljamaan, H, Lethbridge TC. (2015, November 3). MOTL: a Textual Language for Trace Specification of State Machines and Associations. In *Proceedings of 25th Annual International Conference on Computer Science and Software Engineering (Cascon)* (p. 101-110) IBM and ACM. doi:https://dl.acm.org/citation.cfm?id=2886460
108. *Aljamaan, H., Lethbridge TC., *Garzon, M. (2015, September 28). UmpleRun: a Dynamic Analysis Tool for Textually Modeled State Machines using Umple. In *EXE 2015 Workshop at Models 2015* (p. 16-20) CEUR. doi:http://ceur-ws.org/Vol-1560/paper3.pdf
107. Badreddin, O, Sturm, A, Hamou-Lhadj, A., Lethbridge T.C., Dixon, W., Simmons, R. (2015, September 29). The Effects of Education on Student Perceptions of Modeling in Software Engineering. In *HuFamo Workshop of Models 2015* (p. 39-46) CEUR. doi:http://ceur-ws.org/Vol-1522/Badreddin2015HuFaMo.pdf
106. *Abdelzad, V., Amyot, D., Lethbridge, TC. (2015, October 12). Adding a Textual Syntax to an Existing Graphical Modeling Language: Experience Report with GRL. In *17th International System Design Languages Forum* (p. 159-174) Springer. doi:10.1007/978-3-319-24912-4_12
105. *Braun, E., Amyot, D., Lethbridge, TC. (2015, October 12). Generating Software Documentation in Use Case Maps from Filtered Execution Traces. In *17th International System Design Languages Forum* (p. 177-192) Springer. doi:10.1007/978-3-319-24912-4_13
Winner of best paper award
104. *Abdelzad, V., Amyot, D., Alwidian, S., Lethbridge, TC. (2015, August 15). A Textual Syntax with Tool Support for the Goal-oriented Requirement Language. In *International iStar Workshop* (p. 61-66) CEUR. doi:http://ceur-ws.org/Vol-1402/paper6.pdf
103. *Garzon, M, *Aljamaan, H, Lethbridge, TC. (2015, June 15). Umple: A Framework for Model Driven Development of Object-Oriented Systems. In *Software Analysis, Evolution and Reengineering (SANER), 2015 IEEE 22nd International Conference on* (p. 494-498) IEEE. doi:10.1109/SANER.2015.7081863
102. *Abdelzad, V, *Aljamaan, H, *Adesina, O, *Garzon, M Lethbridge, TC. (2014, June 15). A Model-Driven Solution for Financial Data Representation Expressed in FIXML. In *TTC 2014* (p. 65) CEUR. doi:http://ceur-ws.org/Vol-1305/paper15.pdf
101. *Badreddin, O, *Forward, A, Lethbridge, TC. (2013, June 15). Improving Code Generation for Associations: Enforcing Multiplicity Constraints and Ensuring Referential Integrity. In *Software Engineering Research*,

- Management and Applications* (p. 129-149) Springer International Publishing. doi:10.1007/978-3-319-00948-3_9
100. Lethbridge, TC. (2014, April 23). Teaching modeling using Umple: Principles for the development of an effective tool. In *Software Engineering Education and Training (CSE&T), 2014 IEEE 27th Conference on* (p. 23-28) IEEE. doi:10.1109/CSE&T.2014.6816777
 99. *Badreddin, O, Sturm, A, Lethbridge, TC. (2014, June 15). Requirement traceability: A model-based approach. In *Model-Driven Requirements Engineering Workshop (MoDRE), 2014 IEEE 4th International* (p. 87-91) IEEE. doi:10.1109/MoDRE.2014.6890829
 98. *Badreddin, O, Lethbridge, TC, *Forward, A. (2014, January 15). A Novel Approach to Versioning and Merging Model and Code Uniformly. In *MODELSWARD* (p. 254-263) INSTICC. doi:https://ieeexplore.ieee.org/abstract/document/7018472
 97. *Aljamaan, H, Lethbridge, TC, *Badreddin, O, *Guest, G, *Forward, A. (2014, June 15). Specifying Trace Directives for UML Attributes and State Machines. In *MODELSWARD* (p. 79-86). doi:https://ieeexplore.ieee.org/abstract/document/7018450
 96. Lethbridge, Timothy C. (2014, October 1). Umple: An Open-Source Tool for Easy-To-Use Modeling, Analysis, and Code Generation. In *Models 2014 Demonstrations Track* (p. 5) CEUR. doi:http://ceur-ws.org/Vol-1255/paper6.pdf
 95. *Badreddin, O, Lethbridge, TC, Forward, A. (2014, June 15). Investigation and Evaluation of UML Action Languages. In *MODELSWARD* (p. 264-273) INSTICC. doi:https://ieeexplore.ieee.org/abstract/document/7018473
 94. *Garzon, M, Lethbridge, TC, *Aljamaan, H, *Badreddin, O. (2014, November 15). Reverse Engineering of Object-Oriented Code into Umple using an Incremental and Rule-Based Approach. In *Proceedings of 24th Annual International Conference on Computer Science and Software Engineering (CASCON)* (p. 91-105) IBM Corp and ACM. doi:https://dl.acm.org/citation.cfm?id=2735534
 93. *Badreddin, O, Lethbridge, TC, *Forward, A, Elaasar, M, *Aljamaan, H, *Garzón, M. (2014, June 15). Enhanced Code Generation from UML Composite State Machines. In *MODELSWARD* (p. 235-245) INSTICC. doi:https://ieeexplore.ieee.org/abstract/document/7018470
 92. *Badreddin, O, *Forward, A, Lethbridge, TC. (2014, June 15). A Test-Driven Approach for Developing Software Languages. In *MODELSWARD* (p. 225-234) INSTICC. doi:https://ieeexplore.ieee.org/abstract/document/7018469
 91. *Badreddin, O, Lethbridge, TC, Elassar, M. (2013, June 15). Modeling Practices in Open Source Software. In *International Conference on Open Source Systems* (p. 127-139) Springer Berlin Heidelberg. doi:10.1007/978-3-642-38928-3_9
 90. *Badreddin, O, Lethbridge, TC. (2013, June 15). Model oriented programming: bridging the code-model divide. In *Proceedings of the 5th International Workshop on Modeling in Software Engineering* (p. 69-75). doi:https://dl.acm.org/citation.cfm?id=2662754
 89. *Badreddin, O, *Forward, A, Lethbridge, TC. (2013, June 15). Exploring a Model-Oriented and Executable Syntax for UML Attributes. In *Software Engineering Research, Management and Applications* (p. 33-53) Springer International Publishing. doi:10.1007/978-3-319-00948-3_3
 88. Akayama, S, Demuth, B, Lethbridge, TC, Scholz, M, Stevens, P, Stikkolorum, DR. (2013, June 15). Tool Use in Software Modelling Education. In *EduSymp@ MoDELS* CEUR. doi:http://ceur-ws.org/Vol-1134/paper6.pdf
 87. Lethbridge, Timothy C. (2013, June 15). Key Properties for Comparing Modeling Languages and Tools: Usability, Completeness and Scalability. In *Comparing Modeling Approaches* CEUR. doi:http://ceur-ws.org/Vol-1076/paper3.pdf
 86. *Badreddin, O, Lethbridge, TC. (2012, June 15). Combining experiments and grounded theory to evaluate a research prototype: Lessons from the umple model-oriented programming technology. In *Proceedings of the First International Workshop on User Evaluation for Software Engineering Researchers* (p. 1-4). doi:10.1109/USER.2012.6226575
 85. *Badreddin, O, *Forward, A, Lethbridge, TC. (2012, June 15). Model oriented programming: an empirical study of comprehension. In *Proceedings of the 2012 Conference of the Center for Advanced Studies on Collaborative Research* (p. 73-86). doi:https://dl.acm.org/citation.cfm?id=2399784

84. *Aljamaan, H, Lethbridge, TC. (2012, June 15). Towards Tracing at the Model Level. In *Reverse Engineering (WCRE), 2012 19th Working Conference on* (p. 495-498). doi:10.1109/WCRE.2012.59
83. *Garzon, M, Lethbridge, TC. (2012, June 15). Exploring how to Develop Transformations and Tools for Automated Umplification. In *Reverse Engineering (WCRE), 2012 19th Working Conference On* (p. 491-494). doi:10.1109/WCRE.2012.58
82. Mussbacher, G, Alam, O, Alhaj, M, Ali, S, Amálio, N, Barn, B, Braek, R, Clark, T, Combemale, B, Cysneiros, LM, Lethbridge, TC. (2012, June 15). Assessing composition in modeling approaches. In *Proceedings of the CMA 2012 Workshop*. doi:10.1145/2459031.2459032
81. Lethbridge, TC. (2012, June 15). A Model of bCMS Using the Umple Model-Oriented Programming Approach. In *Comparing Modeling Approaches*. doi:http://www.cs.colostate.edu/remodd/v1/sites/default/files/UmpleSubmissionForComparingModelingApproaches-Lethbridge.pdf

PRESENTATIONS:

4. Keynote Address. (2019, June). "Model-Based Systems Engineering: Some Messages for Digital Transformation in Government". Local Digital Transformation in Government Conference, ISACA and Association of Enterprise Architects, Ottawa.
Research Type: Scientific Research
3. Keynote Address. (2018, February). "Teaching Effective UML Modeling by Combining it with Programming". National 6th Kinneret Conference on Software Engineering Education, Kinneret, Israel. Retrieved from <http://www.site.uottawa.ca/~tcl/presentations/KinneretUmpleKeynote.pptx>
Research Type: Scientific Research
2. Lecture. (2018, February). "Practical Model-Based Programming: When Agile and Modeling Meet". National ITLAM, 2-day mini-course, Herzlia, Israel. Retrieved from <http://www.site.uottawa.ca/~tcl/presentations/AgileAndModelingMeetWithUmple.pptx>
Research Type: Scientific Research
1. Lecture. (2017, June). "The Benefits of Text-Diagram Duality in Modeling". Local Modeling Day, Ben-Gurion University of the Negev, Beer Sheva, Israel.
Research Type: Scientific Research

INTELLECTUAL PROPERTIES:

Patents

1. (2007, June 15). Systems, method and computer program products for tracking and viewing changes to information stored in a data structure.

OTHER CONTRIBUTIONS:

Software

1. Umple. (n.d.). University of Ottawa. Retrieved from <http://www.umple.org>
Research Type: Scientific Research
A compiler that combines UML class diagrams, state diagrams, traits, mixins and other techniques into Java, PHP, C++ and other languages. Includes an online website, a command-line tool, plugins for IDEs and extensive manual. Used widely for education in universities around the world

Generated from uOttawa UNIWeb on 11 January 2020

<https://uniweb.uottawa.ca/members/119>