Michael A. Miljanovic – CURRICULUM VITAE

Assistant Professor, Department of Mathematical and Computational Sciences
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Research Interests	Computer education, machine learning, artificial intelligence, game-based learning, serious games, user studies, human-computer interaction, software engineering education, gamification.
Education	**PhD Computer Science, 2015-2020** Ontario Tech University (UOIT), Oshawa, ON, Canada *Supervisor:* Dr. Jeremy Bradbury *Dissertation Title:* Adaptive Serious Games for Computer Science Education **MSc Computer Science, 2015** UOIT, Oshawa, ON, Canada *Supervisor:* Dr. Jeremy Bradbury *Dissertation Title:* RoboBUG: A Game-Based Approach to Learning Debugging Techniques **BSc Honours Computer Science & Mathematics, 2012** University of Toronto, Toronto, ON, Canada
Professional Experience	**Ontario Tech University**, Oshawa, ON, Canada *Associate Graduate Faculty (May 2021 - present)* *Adjunct Professor (May 2021 - present)* **University of Toronto**, Mississauga, ON, Canada *Assistant Professor, Teaching Stream (Contract) (August 2020 - present)* **Ontario Tech University**, Oshawa, ON, Canada *Sessional Instructor, Teaching Assistant, Research Assistant (January 2013 - August 2020)* Research conducted under the supervision of Dr. Jeremy Bradbury in the Software Quality Research Lab (https://www.sqrlab.ca). **University of Toronto**, Scarborough, ON, Canada *Teaching Assistant (January 2012 - December 2012)*
Refereed Conference & Workshop Publications	**Michael A. Miljanovic,** Jeremy S. Bradbury. GidgetML: An Adaptive Serious Game for Enhancing First Year Programming Labs. In *Software Engineering Education and Training (ICSE-SEET'20)*, Seoul, Republic of Korea, July 6–11, 2020, 9 pp. **Michael A. Miljanovic.** "Enhancing Computer Science Education with Adaptive Serious Games," *Proc. of the 2019 ACM Conference on*

	International Computing Education Research (ICER 2019), Toronto, Canada, July 2019, 2 pp. **Michael A. Miljanovic,** Jeremy S. Bradbury. "A Review of Serious Games for Programming," *Proc. of the 4th Joint Conference on Serious Games (JCSG 2018),* Darmstadt, Germany, Nov. 7-8, 2018, 12 pp. **Michael A. Miljanovic,** Jeremy S. Bradbury. *"Making Serious Programming Games Adaptive," Proc. of the 4th Joint Conference on Serious Games (JCSG 2018), Darmstadt, Germany, Nov. 7-8*, 2018, 6 pp. **Michael A. Miljanovic**, Jeremy S. Bradbury. "RoboBUG: A Serious Game for Learning Debugging Techniques," *Proc. of the ACM International Computing Education Research Conference (ICER 2017),* Tacoma, WA, USA, August 2017. **Michael A. Miljanovic,** Jeremy S. Bradbury. "Robot ON!: A Serious Game for Improving Programming Comprehension," *Proc. of the 5th International Workshop on Games and Software Engineering (GAS 2016)*, Austin, TX, USA, May 2016.
Research Service	● **Adjudicator,** 2021 Student Research Competition (SRC), SIGCSE 2021 ● **Reviewer,** 2020 Institute of Electrical and Electronics Engineers (IEEE) Access - Education Society ● **Reviewer,** 2020 52nd ACM Technical Symposium on Computer Science Education (SIGCSE 2021) ● **Co-Reviewer,** 2019 29th Annual International Conference on Computer Science and Software Engineering (CASCON 2019) ● **Co-Reviewer,** 2019 50th ACM Technical Symposium on Computer Science Education (SIGCSE 2019)
Contributed Presentations	● "GidgetML: An Adaptive Serious Game for Enhancing First Year Programming Labs." *ICSE-SEET'20*, Seoul, Republic of Korea, Jul. 8, 2020 ● "A Review of Serious Games for Programming," *JCSG 2018,* Darmstadt, Germany, Nov. 8, 2018 ● "Making Serious Programming Games Adaptive," *JCSG 2018,* Darmstadt, Germany, Nov. 8, 2018 ● "RoboBUG: A Game-Based Approach to Learning Debugging Techniques," *ICER 2017,* Tacoma, WA, USA, Aug. 2017. ● "Adaptive Serious Games for Computer Science Education," *UOIT Graduate Student Conference,* Oshawa, ON, Canada, Apr. 2017. ● "Adaptive Serious Games for Computer Science Education," *Three Minute Thesis Competition,* UOIT, Oshawa, ON, Canada, Mar. 2017.

- "Robot ON!: A Serious Game for Program Comprehension," In Technology Showcase at the *CASCON 2016*, Markham, ON, Canada, Oct. 2016.
- "Robot ON!: A Serious Game for Improving Programming Comprehension," *GAS 2016*, Austin, TX, USA, May 2016.
- "RoboBUG: A Game-Based Approach to Learning Debugging Techniques," *Three Minute Thesis Competition,* UOIT, Oshawa, ON, Canada, Apr. 2015.

Teaching Experience

Assistant Professor – University of Toronto:

- CSC148: Introduction to Computer Science, 2021
- CSC207: Software Design, 2021
- CSC263: Data Structures and Analysis, 2021
- CSC358: Principles of Computer Networks, 2021
- CSC236: Introduction to the Theory of Computation, 2020

Sessional Instructor – UOIT:

- CSCI 4040U: Ethics, Law and the Social Impacts of Computing, 2019
- CSCI 3060U: Software Quality Assurance, 2018, 2020
- CSCI 1060U: Programming Workshops, 2017

Teaching Assistant – UOIT:

- CSCI 3060U/SOFE 3980U: Software Quality (Assurance), 2016-2017, 2019
  – included guest lecturing (2016, 2019)
- CSCI 4040U: Ethics, Law, and the Societal Impacts of Computing, 2018
- CSCI 1060U: Programming Workshop I, 2013, 2015-2016
  – TA coordinator (2015), included guest lecturing (2015)
- CSCI 1040U: Introduction to Programming for Scientists, 2013-2015
  – TA coordinator (2014)
- CSCI 3070U: Analysis & Design of Algorithms, 2014
- CSCI 3220U: Digital Media Production, 2014
- CSCI 4160U: Interactive Media, 2014

Teaching Assistant – University of Toronto:

- MATA30: Introductory Calculus, 2012
- CSCA08: Introductory Programming, 2012
- CSCA65: Discrete Math, 2012
- CSCB63: Data Structures and Algorithm Analysis, 2012

Undergraduate Student Supervision

- **Luka Liberan Rajic,** President's Scholar of Excellence Mentorship Program, 2020-2021
- **Stacey Koornneef*,** Block Based Programming for K-12 Education, 2020-2021

	● **Dikachi Kalu*,** Computing Science Honours Thesis Student, Application of Parsons Problems in an Educational Programming Game, 2019-2020 ● **Kashif Hussain, Ibrahim Mushtaq, Jana Kanagalingam*,** Computer Science Summer Research Students, Enhancing First Year Programming Labs Using Game-Based Learning *(Teaching Innovation Fund Grant, Investigators: Jeremy Bradbury, Michael Miljanovic)*, 2019 ● **Damon Barton*,** Computing Science Honours Thesis Student, Learning Refactoring Using Serious Games, 2017-2018 ● **Luisa Rojas Garcia***, Computing Science Honours Thesis Student, Learning Concurrency Using Serious Games, 2016-2017 ● **Scott McLean***, Software Engineering Summer Research Student, Enhancing First Year Programming Labs Using Game-Based Learning *(Teaching Innovation Fund Grant, Investigators: Jeremy Bradbury, Michael Miljanovic)*, 2016 ***** - Assisted supervision under the guidance of Dr. Jeremy Bradbury
Extra-Curricular Involvement	● Adjudicator, PyJaC Coding Competition, Women in Science and Computing Club (WiSC) & Mathematical and Computational Sciences Society (MCSS) & Physics Club, University of Toronto ● Co-Curricular Record Validator, Centre for Student Engagement, University of Toronto ● President, UOIT Board Games Club, UOIT, 2015-2020 ● President, Brainwave Board Game and Trivia Society, University of Toronto (Scarborough Campus), 2011-2012