- **Personal Information**

  Dr. Anya Tafliovich
  Department of Computer and Mathematical Sciences
  University of Toronto Scarborough
  1265 Military Trail
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- **Degrees**

  Ph.D.: 2004 – 2010, Department of Computer Science, University of Toronto.
     Title of thesis: Predicative Quantum Programming
     Supervisor: Eric C.R. Hehner

  M.Sc.: 2002 – 2004, Department of Computer Science, University of Toronto.
     Title of thesis: Quantum Programming
     Supervisor: Eric C.R. Hehner

  Hon.B.Sc.: 1998 – 2002, With High Distinction, University of Toronto.
     Specialist in Computer Science
     Major in Mathematics

- **Employment**

  06/2022–current: Professor Teaching Stream, Department of Computer and Mathematical Sciences, University of Toronto Scarborough

  06/2016–06/2022: Associate Professor Teaching Stream, Department of Computer and Mathematical Sciences, University of Toronto Scarborough

  10/2010–06/2016: Assistant Professor Teaching Stream, Department of Computer and Mathematical Sciences, University of Toronto Scarborough

  09/2009–08/2010: Course Instructor (Part time), Department of Computer Science, University of Toronto

  05/2002–08/2002: Research Assistant, Software Engineering Group, Department of Computer Science, University of Toronto

- **Research Interests**

  Computer Science Education

  Software Engineering Education

  Computer Science: Formal Methods of Software Design, Formal Verification, Quantum Computing

- **Awards**

  2021 Professional/Pedagogical Development Fund.
     University of Toronto Scarborough VP Academic and Dean.
     Value: $1,000.

2020 Professional/Pedagogical Development Fund.
University of Toronto Scarborough VP Academic and Dean.
Value: $1,000.

2018 Professional/Pedagogical Development Fund.
University of Toronto Scarborough VP Academic and Dean.
Value: $3,500.

2018-2019 A Tool For Assessment of Student Android Projects.
Anya Tafliovich.
University of Toronto Scarborough Teaching Grant.
Value: $5,720.

2017 University of Toronto Scarborough **Faculty Teaching Award**
This highly prestigious award is given annualy to faculty with continuing appointments who hold the rank of *Associate Professor or Professor, tenure stream or teaching stream,* and who have taught at UTSC for *at least five full years.* This award *can only be won once.*

2014/12–current TAid – A TA Aid Application.
University of Toronto Instructional Technology Innovation Fund
Anya Tafliovich (primary applicant), Jen Campbell, Fransisco Estrada, Daniel Zingaro.
Value: $28,370.

2015/05–2016/04 Mediating Israel.
Alejandro Paz, Kirsta Stapelfeldt, Anya Tafliovich (co-applicant).
University of Toronto Scarborough Vice-Principal Research — Research Competitiveness Fund.
Value: $8,550.

2015/04 A server for Software Engineering Courses.
Fransisco Estrada and Anya Tafliovich (co-applicant).
Teaching Equipment Grant.
Value: $5,470.

2013/12–2015/12 Automated Assessment of Students' Computer Programs
University of Toronto Instructional Technology Innovation Fund
Value: $13,000

09/2005–08/2007 Natural Sciences and Engineering Research Council of Canada (NSERC)
Postgraduate Scholarship, PhD level
Value: $42,000

09/2005–08/2006 Ontario Graduate Scholarship (OGS) — declined
Value: $15,000

09/2004–08/2005 Natural Sciences and Engineering Research Council of Canada (NSERC)
Postgraduate Scholarship, PhD level
Value: $21,000

09/2003–08/2004 Natural Sciences and Engineering Research Council of Canada (NSERC)
Postgraduate Scholarship, Master's level
Value: $17,300

09/2003–08/2004 Ontario Graduate Scholarship (OGS) — declined
Value: $15,000

09/2002–08/2003 Ontario Graduate Scholarship (OGS)
Value: $15,000

- **Teaching**

  - Research Project in Computer Science. Summer 2022.
  - Research Project in Computer Science. Winter 2022.
  - Principles of Programming Languages, Winter 2022.
  - Research Project in Computer Science. Fall 2021.
  - Introduction to Computer Science. Fall 2021.
  - Research Project in Computer Science. Summer 2021.
  - Principles of Programming Languages, Winter 2021.
  - Introduction to Computer Science. Fall 2020.
  - Introduction to Software Engineering, Summer 2020.
  - Independent Study in Computer Science: Theoretical Foundations and Practical Applications of Computer Science, Winter 2020.
  - Engineering Large Software Systems, Winter 2020.
  - Introduction to Computer Science. Fall 2019.
  - Development Project in Computer Science: A Software System to Support Outdoor Activities at UTSC. Summer 2019.
  - Engineering Large Software Systems, Winter 2019.
  - Introduction to Computer Science. Winter 2019.
  - Introduction to Computer Science. Fall 2018.
  - Development Project in Computer Science: Web Development for TAid, CSC D94, Fall 2017.
  - Development Project in Computer Science: Integrating Third Party Software into TAid, CSC D94, Summer 2017.
  - Development Project in Computer Science: Web Development for TAid, CSC D94, Summer 2017.
  - Development Project in Computer Science: Upgrading TAid core to Angular 2, CSC D94, Summer 2017.
  - Research Project in Computer Science. Automated Testing for a Prover's Assistant, CSC D94, Winter 2017.
  - Engineering Large Software Systems, CSC D01, Winter 2017.
  - Principles of Programming Languages, CSC C24, Winter 2017.
  - Introduction to Software Engineering, CSC C01, Fall 2016
  - Software Design, CSC B07, Fall 2016.
  - Research Project in Computer Science: Verifying the Verifier; Developing a Test Suite for a Prover's Assistant, CSC D94, Summer 2016.
  - Development Project in Computer Science: Building an Android Front End for TAid: A Support System for Large Teaching Teams, CSC D94, Summer 2016.
  - Development Project in Computer Science: Improving the Web Front-End for MediaCAT: A Software Tool to Support Digital Media Research, CSC D94, Summer 2016.
  - Development Project in Computer Science: Database Schema for MediaCAT: A Software Tool to Support Digital Media Research, CSC D94, Summer 2016.

- Development Project in Computer Science: Learning State-of-the-Art Technologies: Scala and Angular2, CSC D94, Summer 2016.
- Engineering Large Software Systems, CSC D01, Winter 2016.
- Principles of Programming Languages, CSC C24, Winter 2016.
- Research Project in Computer Science: Extending Zotero, CSC D94, Winter 2016.
- Research Project in Computer Science: Developing Software Tools to
- Support Digital Media Research, CSC D94, Winter 2016.
- Introduction to Software Engineering, CSC C01, Fall 2015.
- Software Design, CSC B07, Fall 2015.
- Research Project in Computer Science: Developing Software Tools to Support Digital Media Research, CSC D94, Fall 2015.
- Introduction to Computer Programming, CSC A20, Summer 2015.
- Research Project in Computer Science: Developing Software Tools to Support Digital Media Research, CSC D94, Summer 2015.
- Research Project in Computer Science: Improving Netty, a Prover's Assistant, CSC D94, Summer 2015.
- Engineering Large Software Systems, CSC D01, Winter 2015.
- Principles of Programming Languages, CSC C24, Winter 2015.
- Topics in Theoretical Computer Science: Formal Methods of Software Design, CSC D72, Winter 2015.
- Research Project in Computer Science: Improving Netty, a Prover's Assistant, CSC D94, Fall-Winter 2014-2015.
- Research Project in Computer Science: Statistical Data Analysis in a Computer Science Education Study, CSC D94, Fall-Winter 2014-2015.
- Introduction to Software Engineering, CSC C01, Fall 2014.
- Software Design, CSC B07, Fall 2014.
- Research Project in Computer Science: Reading course on Formal Verification, CSC D94, Fall 2014.
- Engineering Large Software Systems, CSC D01, Winter 2014.
- Principles of Programming Languages, CSC C24, Winter 2014.
- Research Project in Computer Science: Investigating Quipper, a Quantum Programming Language, Fall-Winter 2013-2014.
- Introduction to Software Engineering, CSC C01, Fall 2013. Software Design, CSC B07, Fall 2013.
- Introduction to Computer Science for the Sciences, CSC A20, Summer 2013.
- Engineering Large Software Systems, CSC D01, Winter 2013.
- Principles of Programming Languages, CSC C24, Winter 2013.
- Research Project in Computer Science: Using HOL Theorem Prover to Verify Probabilistic Programs, Fall-Winter 2011-2012.
- Introduction to Computer Science for the Sciences, CSC A20, Summer 2011.
- Principles of Programming Languages, CSC C24, Winter 2011.
- Introduction to Computer Science, CSC A48, Winter 2011.
- Principles of Programming Languages, CSC324, Summer 2010.

- Principles of Programming Languages, CSC324, Winter 2010.
- Introduction to Computer Science, CSC148, Winter 2010.
- Accelerated Introduction to Computer Science, CSC 150, Fall 2009.
- Introduction to Computer Programming (an Engineering Science course), CSC 180, Fall 2009.
- Principles of Programming Languages, CSC324, Summer 2008.
- Principles of Programming Languages, CSC324, Winter 2008.

- **Program Committees**

  - Program Committee Member of ITiCSE 2022, The 27th annual conference on Innovation and Technology in Computer Science Education. Also Session Chair.
  - Senior Program Committee Member of SIGCSE 2022, The 53rd Technical Symposium on Computer Science Education.
  - Program Committee Member of ITiCSE 2021, The 26th annual conference on Innovation and Technology in Computer Science Education. Also Session Chair.
  - Senior Program Committee Member of SIGCSE 2021, The 52nd Technical Symposium on Computer Science Education.
  - Program Committee Member of ICSE JSEET 2021, A Joint Program of the 43rd International Conference on Software Engineering (ICSE) Software Engineering Education and Training Track (SEET) and the Conference on Software Engineering Education and Training (CSEE&T).
  - Program Committee member of CSEE&T 2020, The 32nd IEEE International Conference on Software Engineering Education and Training.
  - Program Committee member of ITiCSE 2020, The 25th Annual Conference on Innovation and Technology in Computer Science Education.
  - Program Committee member of SIGCSE 2020, The 51st ACM Technical Symposium on Computer Science Education. Special Sessions.
  - Program Committee member and Chair of 2 tracks of CSEE&T 2019, The 32nd IEEE International Conference on Software Engineering Education and Training.
  - Program Committee member of ITiCSE 2019, The 24th Annual Conference on Innovation and Technology in Computer Science Education.
  - Program Committee member of SIGCSE 2019, The 50th ACM Technical Symposium on Computer Science Education.
  - ITiCSE 2018, The 23rd Annual Conference on Innovation and Technology in Computer Science Education.
  - GHC 2018, Grace Hopper Celebration of Women in Computing, Research Poster Session.
  - CSEE&T 2018, The 31st IEEE International Conference on Software Engineering Education and Training.
  - SIGCSE 2018, The 49th ACM Technical Symposium on Computer Science Education.
  - CSEE&T 2017, The 30th IEEE International Conference on Software Engineering Education and Training.
  - ITiCSE 2017, The 22nd Annual Conference on Innovation and Technology in Computer Science Education.

- GHC 2017, Grace Hopper Celebration of Women in Computing, Research Poster Session.
- CSEE&T 2016, the 29th Conference on Software Engineering Education and Training.
- MPC 2015, the 12th International Conference on Mathematics of Program Construction.
- JSEET 2015, A Joint Program of the ICSE Software Engineering Education and Training Track (SEET) and the Conference on Software Engineering Education and Training (CSEE&T).
- GHC 2015, Grace Hopper Celebration of Women in Computing, Research Poster Session.
- CSEE&T 2014, the 27th Conference on Software Engineering Education and Training.
- MPC 2012, the 11th International Conference on Mathematics of Program Construction.

- Publications

  - Luca Chiodini, Igor Moreno Santos, Andrea Gallidabino, Anya Tafliovich, Andre L. Santos, Matthias Hauswirth: A Curated Inventory of Programming Language Misconceptions. In The 26th ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE 2021).
  - Anya Tafliovich, Thomas Caswell, and Francisco Estrada: Teaching Software Engineering with Free Open Source Software Development: An Experience Report. In Proceedings of The 31st IEEE International Conference on Software Engineering Education and Training (CSEE&T 2019).
  - Francisco Estrada and Anya Tafliovich: Bridging the Gap Between Desired and Actual Qualifications of Teaching Assistants: An Experience Report. In Proceedings of the 22nd Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2017).
  - Anya Tafliovich, Jennifer Campbell, Daniel Zingaro, Francisco Estrada, and Leo Porter: Forming Strong and Effective Student Teams. Birds of a Feather Session. In Proceedings of the 48th ACM Technical Symposium on Computer Science Education (SIGCSE 2017).
  - Andrew Petersen, Michelle Craig, Jennifer Campbell, and Anya Tafliovich: Revisiting why students drop CS1. Cited for excellence. In Proceedings of the 16th Koli Calling International Conference on Computing Education Research (KOLI 2016).
  - Anya Tafliovich, Andrew Petersen, and Jennifer Campbell. Evaluating Student Teams: Do Educators Know What Students Think? In Proceedings of the 47th ACM Technical Symposium on Computer Science Education (SIGCSE 2016).
  - Jennifer Campbell, Stan Kurkovsky, Chun Wai Liew, and Anya Tafliovich. Scrum and Agile Methods in Software Engineering Courses. Panel. In Proceedings of the 47th ACM Technical Symposium on Computer Science Education (SIGCSE 2016).
  - Jennifer Campbell, Anya Tafliovich. An Experience Report: Using Mobile Development To Teach Software Design. In Proceedings of the 46th ACM Technical Symposium on Computer Science Education (SIGCSE 2015).
  - Anya Tafliovich, Andrew Petersen, and Jennifer Campbell. On the Evaluation of Student Team Software Development Projects. In Proceedings of the 46th ACM Technical Symposium on Computer Science Education (SIGCSE 2015).
  - Anya Tafliovich, Jennifer Campbell, and Andrew Petersen. A Student Perspective on Prior Experience in CS1. In Proceedings of the 44th ACM Technical Symposium on Computer Science Education (SIGCSE 2013).
  - Anya Tafliovich and Eric C.R. Hehner. Programming with quantum communication. In Proceedings of the 7th ETAPS Workshop on Quantitative Aspects of Programming Languages (QAPL), volume 253(3) of Electronic Notes in Theoretical Computer Science (ENTCS), 19 pages, York, UK, 2009.

- Anya Tafliovich. It's not magic: I can prove it. In Proceedings of the GHC New Investigators, 4 pages, Orlando, USA, 2007.
- Anya Tafliovich and Eric C.R. Hehner. Programming telepathy: Implementing quantum non-locality games. In Proceedings of the 10th Brazilian Symposium on Formal Methods, 13 pages, Ouro Preto, Brazil, 2007. (Primary author, Presenter). Invited for a special issue of Elsevier's Electronic Notes in Theoretical Computer Science (ENTCS).
- Anya Tafliovich and Eric C.R. Hehner. Quantum predicative programming. In Proceedings of the 8th International Conference on Mathematics of Program Construction (MPC), volume 4014 of Lecture Notes in Computer Science (LNCS), 18 pages, Kuressaare, Estonia, 2006.
- Marsha Chechik, Bennet Devereux, Steve M. Easterbrook, Arie Gurfinkel, Albert Lai, Viktor Petrovykh, Anya Tafliovich, and Christopher Thompson-Walsh. χchek: A model checker for multi-valued reasoning. In Proceedings of the 25th International Conference on Software Engineering (ICSE), 4 pages, Portland, USA, 2003.

- **Posters Presented at Meetings and Symposia**

  - On quantum non-locality. Grace Hopper Celebration of Women in Computing, Orlando, USA, 2007.
  - Formalizing quantum pseudo-telepathy games. The 4th International Workshop on Quantum Programming Languages, Oxford, United Kingdom, 2006.
  - Quantum programming. Quantum Information, Computation and Logic: Exploring New Connections, Perimeter Institute, Waterloo, Canada, 2004.

- **Invited Lectures**

  - A. Tafliovich. Towards writing correct quantum programs. McMaster University, Hamilton, Canada. November 2012.
  - A. Tafliovich. On writing correct quantum programs. Institute for Quantum Computing, Waterloo, Canada, November 2009.
  - A. Tafliovich. Predicative quantum programming. Canadian Quantum Information Student Conference, Thematic Program on Mathematics in Quantum Information, The Fields Institute, Toronto, Canada, August 2009.
  - A. Tafliovich. A formal approach to quantum computing. Taming The Quantum World, Waterloo, Canada, June 2007.
  - A. Tafliovich. Analyzing quantum algorithms: A formal approach. Institute for Quantum Computing, Waterloo, Canada, November 2006.
  - A. Tafliovich. Quantum predicative programming. Mathematical Institute of the Academy of Sciences of the Czech Republic, Prague, Czech Republic, July 2006.