

EDUCATION

- University of Toronto, Honors B.Sc, Computer Science Specialist

Class of 2019

- Finished Courses - **GPA: 3.94:**
 - Enriched Introduction to the Theory of Computation
 - Class Average: 70, Final Mark: 98
- Current Courses:
 - Programming on the Web
 - Algorithm Design, Analysis & Complexity
 - Software Tools and System Programming
 - Software Design
 - Natural Language Computing
 - Intro to Neural Networks and Machine Learning

SKILLS AND QUALIFICATIONS

- Proficient in: Python, C/C++, C#, ActionScript.
- Familiar with: JavaScript/QML, Java, Haxe, LaTeX.
- Have experience with: HTML, CSS, MATLAB.
- Software: Vim, Git, Qt Creator, Photoshop, Flash Professional, Unity3D, Microsoft Office

PERSONAL PROJECTS

- ([Link](#)) **Life++** 2016 - present
 - Implemented rigorous time-management solution in C++, QML with automatic scheduling
 - Designed greedy algorithm to achieve real-time planning up to 365 days into the future
- ([Link](#)) **Cellular** 2015 - present
 - Designed and developed procedural 2D action / adventure game in Unity C# and Haxe
 - Implemented procedural generation as well as culling algorithm to support seamless map with 65536+ tiles
 - 1st place in UofT Game-Making Deathmatch 2017
- ([Link](#)) **TensorBuilder** 2017
 - Implemented a GUI editor for TensorFlow™ in QML and JavaScript using Qt
 - Written graph-to-python compiler for easy execution
- ([Link](#)) **Block Buster** 2015
 - Developed cross-platform side-scrolling arcade game in ActionScript 3.0 using Adobe AIR during high school
 - 400 plays in 1 month on high school arcade machine
- ([Link](#)) **Up from the Ground** 2013 - 2015
 - Designed and developed 2D action / adventure space shooter game in ActionScript 3.0 during high school
 - Written high-standard post-processing shaders

WORK EXPERIENCES

- **Research Assistant**, University of Toronto 2017
 - Assisted CS Professor with educational game design research, written report on data analysis
 - Design and developed game, constructed survey, gathered data from 20+ testers
 - Supervisor: Prof. Steve Engels
- ([Link](#)) **Deadlock** 2017
 - Designed and developed an educational game about programming, for research project with Steve Engels
 - Designed and implemented modular and intuitive block scripting interface and compiler in C#
 - Featured on UofT News ([Link](#))

AWARDS AND COMPETITIONS

- 1st Place - Bloomberg Codecon UofT 2017
- 2nd Place - Microsoft Code Competition UofT 2017
 - Solved one of the hardest problem
- 2nd Best Accuracy - (National) USC Competition 2017
 - Developed geo-locator tool for drone mission
- 1st Overall - UofT Game-Making Deathmatch 2017
 - Best Technical Achievement Award
 - Judges recommended commercial release
- ([Link](#)) Silver Medalist - (National) Canadian Computing Olympiad 2016
- Silver Division Winner - DMCI Programming Gala 2016
- 3rd Place - Big Data Challenge 2016
 - ([Link](#)) Journal Published on STEM Fellowship
- School Champion - Canadian Open Mathematics Challenge 2015 - 2016
- Gold Medalist - Toronto Science Fair 2015

CLUBS AND CONTRIBUTIONS

- Clubs

- Vision Subdivision Lead of University of Toronto Aerospace Team: Aerial Robotics division 2016 - present
- Co-President of Game Design and Development Club 2016 - present
- University of Toronto Robotics Association 2016
- Founder and instructor of YMCI Game Dev Club 2015
- Lead instructor of YMCI Programming Club 2014 - 2016

- Contributions

- Numerous contributions to open source projects
 - Projects: OpenFL, Starling
- Assistant Councilor at Art Gallery of Ontario 2015 Summer
- Volunteer at YMCA 2014 - 2015