Ling **Long**

Software Engineer · Financial Engineer

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Education

University of Toronto — *Toronto, Canada*

B.A.Sc. in Engineering Science (Math, Stats, and Finance) cGPA: 3.71 — *Sept. 2015 - May 2019 (Exp.)*

- Select Coursework: Data Structures/Algorithms, Foundations of Computing, Databases, Web Development, Introduction to Machine Learning, Real Analysis, Regression, Actuarial Science, Financial Engineering, Financial Optimization Models, and Mathematical Programming.

Work Experience

Google (YouTube) — *Mountain View, CA*

Software Engineer (Upcoming) — *Expected Start: July 2019*

- Will be joining YouTube (Part of Google) as a new graduate Software Engineer (L3). Will be mostly working on Front-End and Full Stack web development.

Intuit Inc. (QuickBooks) — *Mountain View, CA*

Software Engineering Intern — *May 2018 - Aug. 2018*

- Created a set of UI widgets(React/Redux, SASS, GraphQL) to deliver payment information insights as part of a new Payments UI in QuickBooks.
- Improved User Experience for over 50000 small businesses as part of a V1 release for a new Payments platform within the QuickBooks Ecosystem.
- Contributed 2 major features to the open source QuickBooks business API as part of an intern hackathon.

Technical Portfolio

Money Rocket — *Web Development, Finance*

Full Stack Robo-Advisor for ETF portfolio generation — *Sept. 2018 - Dec. 2018*

- Created a Full-Stack Robo-Advisor to give financial advice for ETF portfolios. Used Bootstrap with jQuery on the Front-End and SQLite/Flask for the Back-End, with Python/Quandl for the business logic/data fetching.
- Generated market parameters using the three factor Fama-French model, and optimised user portfolios by using an adapted version of Mean Variance Optimization. Black-litterman was used to incorporate user views into the model.

Sonic The Robot — *Robotics*

Fully autonomous recycling robot — *Jan. 2017 - Jun. 2017*

- Worked in a 3-man Design team to conceptualize, prototype, and construct a fully autonomous bottle-sorting robot that could sort 10 bottles in 30 seconds. Documented the project with Engineering project methodology (i.e. Gantt charts, Stakeholder analysis).
- Developed C code to interface with a PIC micro controller to control the electrical components of the robot, as well as the circuits for sensors and actuators. Created an Heuristic algorithm with 2 color sensors to detect a recycled bottle type.

Honors & Awards

Programming

2018	**Finalist,** PUSH Code Competition	*Toronto, Canada*
2018	**2nd,** Hack Western 4	*London, Canada*
2018	**3rd,** Google Games	*Waterloo, Canada*
2017	**3rd,** Microsoft Coding Challenge	*Toronto, Canada*

Mathematics

2015	**Qualified,** Canadian Mathematical Olympiad	*Canadian Finalist*
2015	**Qualified,** Asian Pacific Mathematical Olympiad	*Global Finalist*
2014	**Qualified,** United States Junior Mathematical Olympiad	*US Finalist*

Technical Skills

Skills (In order of Proficiency)

Languages listed first, then miscellaneous skills/frameworks

- Python, JavaScript (React/Redux, jQuery, NodeJS), HTML/CSS, C++/C, MATLAB, SQL, MongoDB, Express, Git.