Samuel **Weninger**

Software Engineer Intern · Computer Engineering Student

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Education

University of Toronto — *Toronto, ON*

B.S. in Computer Engineering — *Sept. 2017 - May 2022*

- 3.75 GPA

Skills

Software	Python, C++/C, Javascript, SQL (PostgreSQL/MySQL), HTML, CSS, Matlab, LaTeX
Frameworks	Node.js, React.js, React Native, PyTorch, TensorFlow, Flask
Technical	Linux, Git, Bash, GDB, Docker

Experience

Huawei Technologies Canada — *Markham, ON*

Software Engineering Intern — *May 2020 - Present*

- Collaborated with a team of architects and engineers to develop a distributed database management system (**C++**) ready for use in 5G networks.
- Developed the infrastructure for compilation and execution of prepared **SQL** transactions as a part of optimization feature on database (C/C++).
- Optimized storage and transactional aspects of a distributed database system, and made server-side modifications to fix and improve the efficiency of client-server database transactions (**C++, SQL**).
- Assessed and evaluated functionality of database queries and transactions; uncovered, reproduced, and repaired underlying issues in database, and provided tests for these issues (**Python, Bash**).

Holland Bloorview Kids Rehabilitation Hospital — *Toronto, ON*

Computer Engineering Research Assistant — *May 2019 - Aug 2019, May 2018 - Aug 2018*

- Designed, tested and implemented a data acquisition/biofeedback system to measure and improve gait in lower limb amputees (**C++**).
- Implemented a program to efficiently sort and analyze data returned from a biofeedback system (**Matlab**).
- Developed algorithm to make accurate interpretations of readings from force sensing resistors (**C++**).

Projects and Publications

Course Finder Application — *Toronto, ON*

Web/Mobile Application for University Course Planning (Adel Aswad, Alex Senn, Jay Bihola, Youssef Chmait) — *Sep 2021 - Present*

- Created an interactive web page designed for course selection at University of Toronto; users can register for an account, login, quick search for courses of interest, and create profiles to save different course loads (repository currently private).
- Designed and populated relations and schemas with course and user data in **PostgreSQL**.
- Developed a backend API for application using **Python Flask** and **SQLAlchemy** ORMs for queries to application database.
- Manipulated **React.js** components in Javascript to create interactive web pages for the frontend of the application.

Jane Street Electronic Trading Challenge — *Toronto, ON*

Finalist: Placed 2/100+ Undergraduate and Graduate Student Participants — *June 2019*

- Developed a trading algorithm to realize arbitrage opportunities in ETFs/ADRs and maximize profit in a simulated market with other teams.
- Established connection to **Amazon EC2** server and deployed trading algorithms (**C++**) to compete on server with other teams' algorithms.

Development and Assessment of a Wearable Biofeedback System to Improve Gait in Lower Limb Amputees — *Toronto, ON*

Co-Author (Samuel Weninger, Rafael Escamilla Nunez and Jan Andrysek) — *May 2019 - Sept 2019*

- Submitted (Journal Paper, co-author, expected publication date: 2021)
- UnERD 2018 (Abstract, Poster, Undergraduate Engineering Research Day)

Honors & Awards

2017-2020	**Dean's Honour List,** University of Toronto Engineering	*Toronto, ON*
2019	**Finalist,** Jane Street Electronic Trading Challenge (Hackathon)	*Toronto, ON*
2018	**Director's Summer Research Opportunity Award,** IBBME, University of Toronto	*Toronto, ON*
2018	**IBBME Presentation Award Winner,** IBBME, University of Toronto	*Toronto, ON*