

# DANIEL LAUFER

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## Education

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### University of Toronto

Sept. 2019 - Present

Honours Bachelor of Science (HBSoc) + PEY Co-op

*Specialization in Computer Science and Information Security, Minor in Mathematics*

3.9/4.0 CGPA (88% average)

## Experience

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### Computer Science Teaching Assistant

Jan. 2021 - Present

*University of Toronto*

- \* Assisted professors in lecture sections (each containing 160+ students) by leading in-class activities and answering students' questions.
- \* Marked hundreds of assignment/exam submissions per term under tight deadlines and provide constructive feedback to students to improve their computer science skills.
- \* Courses: CSC209 (Systems Programming - Linux, C, Bash, etc.), CSC148 (Introduction to Computer Science - Python, Object-oriented-programming, data structures, etc.).

### Google Developer Student Club Technical and Workshop Lead

Aug. 2021 - Present

*Google Developer Student Club at the University of Toronto's Mississauga Campus*

- \* Hosting biweekly technical workshops attended by 100+ UofT students on topics like React, Docker, AWS, etc.
- \* Regularly hosted professional development events such as resume reviews and mock technical interviews for students.
- \* Empowering students to expand their knowledge in technology and build solutions for their local communities.

### Full Stack Software Developer Intern

Sep. 2021 - Dec. 2021

*Wealthscope*

- \* Developed front-end applications with *React and Redux*; developing back-end APIs using the *Django REST Framework*.
- \* Created a tool that allows users to compare their investment portfolios (consisting of stocks, ETFs, crypto, etc) to determine how various statistics differ between them (including annualized returns, total risk, fees, etc).
- \* Created the new 'Retirement Blueprint' tool that guides users through creating personalized investment and saving plans to reach their financial goals.
- \* Created CI/CD pipelines using GitHub Actions to automatically deploy code changes to AWS EC2 instances.
- \* *Technologies used:* React, Redux, Django, Django REST Framework, Python, Pandas, AWS, Docker, PostgreSQL, Jira.

### Research Assistant

Sep. 2021 - Oct. 2021

*Schulich School of Business, York University*

- \* Developed software and used various Google Cloud services to collect 31 million comments made by Reddit users on the subreddit 'Wall Street Bets' during the years 2019-2021.
- \* Technologies used: Docker, Google Cloud's Compute Engine, Google Cloud's Cloud Storage, Python, Pandas.

## Technical Skills

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**Programming Languages/Frameworks/Libraries:** Python, SQL, PostgreSQL, React, Redux, C, Java, JavaScript, Node.js, Express, Neo4j, Cypher, MIPS Assembly, Django, Django REST Framework, Pandas, HTML, CSS.

**Cloud/OS/Tools:** AWS, Google Cloud, Linux/Unix, Docker, Firebase, Travis CI, Git/GitHub, GitHub Actions, Jira.

**Certifications:** AWS Certified Cloud Practitioner.

**Other:** data structures and algorithms, software design patterns, agile software development, SCRUM, UML.

**Languages:** English (Fluent), Polish (Conversational), French (Basic).

## Projects

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**StudyTogether** | *React, Redux, MongoDB, Google Cloud, Jira, Agile Development (SCRUM)*

- \* A web app that facilitates the process of forming study groups at universities across Canada.
- \* Users can easily form meaningful connections with other students and form study groups that others can join.

**Kubernetes Flashcards** | *Microservices, Kubernetes, CI/CD, Docker, AWS, Google Cloud, PostgreSQL, Node.js, React*

- \* A web application that allows users to create and share personalized collections of flashcards to assist themselves and others in studying for assessments, learning new languages, and much more.

**Zoomer Rideshare** | *Microservice architecture, Java, Maven, PostgreSQL, MongoDB, Neo4j, Docker, Python*

- \* A rideshare app that allows you to request rides, matching you with drivers in the nearby area to safely take you to your destination.

### Interactive Pathfinding Algorithm Visualizer | *Python, Pygame*

- \* A visualization, created with Python, of several pathfinding algorithms including 'A\*' and 'Dijkstra's Algorithm'

### The Textbook Exchanger | *React, Firebase, Firestore, Redux, JavaScript, HTML/CSS, Bootstrap*

- \* An online marketplace that facilitates the process of purchasing and selling textbooks among students
- \* Users can create personalized accounts with which they can make postings about textbooks they intend to sell
- \* Created a RESTful API to perform CRUD operations on data and connected it to a front-end made with React & Redux

### Multi-network Router | *Python, Mininet*

- \* Created a functional multi-network router that is capable of running widely used intra-AS routing algorithms like OSPF and RIP

### HTTP Server | C Programming Language

- \* A fully-functional HTTP server that is capable of serving web content to multiple clients simultaneously
- \* Added support for persistent connections and pipelined HTTP requests

### XMODEM File Server | C Programming Language

- \* A server, written using the C programming language, capable of transferring files to multiple clients simultaneously using the XMODEM file transfer protocol

## Relevant Coursework

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**Courses taken at the University of Toronto:** Principles of Computer Networks, Introduction to Databases, Computational Complexity and Computability, Introduction to Software Engineering, Software Design with Java, Data Structures and Analysis, Systems Programming (Linux, Bash, C), Computer Organization/Architecture (MIPS Assembly & Computer Hardware), Theory of Computation, Introduction to Computer Science, Probability and Statistics, Linear Algebra I & II, Multivariable Calculus

**Other:** Modern React with Redux, Database Design & PostgreSQL, Intermediate PostgreSQL, The Complete Guide to Docker and Kubernetes, Introduction to Data Science with Python, Applied Plotting/Charting & Data Representation with Python. *Please visit my LinkedIn page to learn more about these courses.*

## Awards and Achievements

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| * University of Toronto Mathematical and Computational Sciences 2020-2021 Honour Roll   | <b>Jun. 2021</b> |
| * University of Toronto Dean's List Scholar   | <b>Sep. 2020</b> |
| * University of Toronto Scholar   | <b>May 2019</b>  |
| * ECOO Programming Competition Semifinalist   | <b>Apr. 2019</b> |
| * Finished first place in my school board at the Halton Skills Competition for Robotics | <b>Apr. 2019</b> |
| * Ranked in the top 25% of all contestants at the Canadian Computing Competition        | <b>Feb. 2018</b> |