Felix Fong

hello@fongfelix.com | linkedin.com/in/felixfong58 | github.com/fvcci

Experience

McMaster University — Incoming Jan 2025
Teaching Assistant — *Hamilton, ON*

Intel Corporation — May 2023 – August 2024
Software Engineer - PEY Intern at Intel — *Toronto, ON*

- Collaborated in a cross-functional team in the Programmable Solutions Group (PSG) to develop Intel Quartus Prime Software using **C++, Python, Perl, and TCL**.
- Created a scalable software abstraction layer enabling cross subsystem API integration, providing the necessary framework to address a critical bug and support future extensibility.
- Enhanced design validation by developing new netlist legality checks and analytics report.
- Drove a substantial increase in developer productivity by pioneering a new internal framework that streamlined the implementation of key features across projects.
- Received praise for creating comprehensive project documentation and fostering an inclusive work environment.

Deltahacks — November 2022 – Present
Technical Executive — *Hamilton, ON*

- Redesigned a legacy relational database schema to scale the backend to handle **10 000+ requests** throughout the year by leveraging **prisma ORM, Netlify functions stack, and TRPC**.
- Developed the grading portal, streamlining the evaluation process of **1365 applicants** by utilizing **React, Tailwind and shadcn/ui**.
- Designed and implemented the schedule page that successfully managed **1522 sessions over 3 days**, resulting in improved participant experience and smoother event coordination.

McMaster Competitive Programming Club — August 2022 – April 2023
Vice President — *Hamilton, ON*

- Taught advanced data structures and algorithms in Python in anticipation for the **International Collegiate Programming Contest** (ICPC).
- Hosted an Intel sponsored competition resulting in **35** participants.

McMaster Department of Computing and Software — May 2022 - August 2022
Research Assistant — *Hamilton, ON*

- Facilitated with implementing an encryption algorithm in **Haskell**, resulting in a mention in an internal paper.
- Created a data analysis tool that fits **600** data points to probability distributions to identify key insights utilizing scipy and numpy libraries.

Projects

Path Finding Sandbox | *Typescript, ReactJS, ViteJS, Tailwind* — August 2022 – Present

- Developed a **graph theory** path finding visualization tool to visualize **6** algorithms

Technical Skills

Languages: C/C++, TCL, Perl, Typescript, Javascript, HTML, CSS, Rust, Elm, Python, Java, Haskell, Bash, SQL

Libraries and Frameworks: ReactJS, JSX, Tailwind, NextJS, Bootstrap, Java Swing, shadcn/ui, Prisma ORM, Axios, NodeJS, ViteJS, MongoDB, Payload CMS

Developer Tools: GitHub, Git, Jira, Perforce, Linux, Apache Maven, Google Cloud

Education

McMaster University | 3.9 GPA — September 2021 – April 2026
Candidate for Bachelor of Applied Science, Computer Science — *Hamilton, ON*

Achievements

McMaster Faculty of Engineering – **Engineering Award of Excellence Scholarship ($3000)** — June 2021
Bur Oak Secondary School – **Award of Merit for Grade 12 Data Management** — June 2021
Euclid Waterloo Math Contest – **Certificate of Distinction (Top 25%)** — May 2021