Felix Fong

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Enthusiastic Software Engineer with proficiency in leadership, web design, competitive programming, and educating.

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 introducing 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 leveraging **prisma ORM**, **Netlify functions stack**, **and TRPC** to scale the backend to handle **10 000+ requests** throughout the year.
- Developed the grading portal, streamlining the evaluation process of 1365 applicants by leveraging 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 using Haskell.
- 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)	$\mathrm{June}\ 2021$
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