

Luke Tao

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🔗 <https://github.com/tao-luke>

Summary of Qualification

Languages

- C++, Python, JavaScript, PHP, C , ARM64, MIPS

Tools and Frameworks

- Matlab, Pytorch, openCV, Scikit-learn, MERN stack(MongoDB, Express, React, Node), Laravel, Flask, MySQL

Work Experience

Software Engineer, Huawei Canada 09/2021 –Present(12/2021)

- Assisting in cryptographical development in data authentication and verification

Systems Engineer, Kaleidescape 04/2021 –09/2021

- Assembled a fully concurrent, user-facing global search system that provides fast and accessible movie navigation using C++14
- Improved average image cache loading time by 15% by optimizing various SQL query calls in system workers

Full-Stack Developer, Digital Extremes 05/2020–09/2020

- Developed a comprehensive GoogleSheet API scripts to automate news parsing and content deployment, improving average build performance by over 10%
- Assisted in the deployment of Twitch extensions that handled high-traffic events by automating caching and optimizing end-user transactions

Project

FlexiPress, C++,Python 03/2021–04/2021

- Prototyped and created an algorithm-complete compression program with a custom built file format to support almost any combination compression sequences possible
- Constructed to permit full data-tailored encoding operations instead of the standard "zip it all" sequence, decreasing operation time without losing performance (improves most compression ratio by up to 3%)

Vm, C++ 10/2020–11/2020

- Designed and built a custom version of Vim in C++ to support over 50 commands, along with flexibility for extension maintained (program wide low coupling + high cohesion)
- Implemented a complete terminal interface using C++'s Ncurses library to support cursor, text-wrapping, screen movement, and smart syntax highlighting

Education

Candidate for Honours Bachelor of Computer Science, University of Waterloo 9/2019 - 5/2024

- Favorite Courses: Data-Structures and Data-Management (Enriched), Object-Oriented Software Development (Enriched), Algorithm Design and Data Abstraction (Enriched), Functional Program Design (Enriched)
- Awards: Duke of Edinburgh's Award Gold, President's Scholarship of Distinction, President's Research Award