Luke Tao

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Summary of Qualification

Languages
- C++, JavaScript, Python, HTML/CSS, Scheme, Racket, C, PHP

Tools and Frameworks
- Node.js/Express, React, Vim, MongoDB, Excel, Shell, GIMP, Laravel, MySQL, Jquery

Work Experience

Full-Stack Developer, Digital Extremes 05/2020–09/2020
- Creatively implemented new pages and contents using **Laravel**, **PHP**, and **Jquery** for a **high-traffic** site
- Developed and improved **GoogleSheet API** scripts using **Python**, **Laravel**, and **Apache** to automate news deployment process and increased site efficiency
- Assisted in the expansion of a **Twitch** extension that was deployed during a major event of the game by automating translation updates and changes using **Python**
- Planned and scaled up database in **Laravel** in use with **MySQL** to accommodate various new query script implementations

Project

Vm, C++ 11/2020–11/2020
- Designed and built a custom version of **VIM** from scratch with all key features supported(prefix, undo, and such)
- Implemented graphics using **C++** Ncurse library to support cursor, text-wrapping, screen movement, and syntax highlighting for .h and .cc files
- Constructed to accommodate future extensions using various design patterns such as observer and inversions to achieve program wide low coupling and high cohesion

TitanicO, Node.js/Express, REACT, Azure, MongoDB 11/2019–1/2020
- Developed an Webapp that predicts the chance of an individual surviving the Titanic using full stack, particular **Node.js**, **REACT**, and **MongoDB**
- Assisted in the training of an Azure API to evaluate survival rates based on personal information
- Designed an interactive interface using **REACT** and implemented RESTful back-end services with **Node.js/ Express**
- Used async request handling to store data on **MongoDB**

Experience

Stanford University, California, Summer Intern 4/2018–06/2018
- Participated in research conference regarding **RSA** and **Twofish** data encoding algorithms
- Mechanically constructed an **Enigma** Machine prototype using a 4070 quad-xor gate and a solenoid switch
- Coordinated with DevOps to modify **Enigma** algorithms and improved its runtime using **Pickle** and serializing the data

Education

Candidate for Honours Bachelor of Computer Science, University of Waterloo 9/2019 - 5/2024
- Relevant Courses: **Object-Oriented Software Development(Enriched), Elementary Algorithm Design and Data Abstraction(Enriched), Functional Program Design(Enriched)**
- Awards/Distinctions: **Duke of Edinburgh's Award Gold, President's Scholarship of Distinction, President's Research Award**