Ray Ho

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Programming Languages: Java, JavaScript, TypeScript, Python, HTML, CSS, C, C#, C++
Frameworks/Libraries: React, Node, Express, MongoDB, JUnit
Other Technologies: Git, Bash, Firebase, Google Apps Scripts

EDUCATION

The University of British Columbia   **May 2025**
- Bachelor of Applied Sciences in Computer Engineering
- International Major Entrance Scholarship - $80,000 CAD

WORK EXPERIENCE

Alida   **May 2023 - present**
Software Engineering Intern   Vancouver, Canada
- Working on platform microservices with TypeScript and Node

UBC Bionics Design Team   **Sep 2022 - present**
Software Developer   Vancouver, Canada
- Sped up the process of testing the team's kernel program by 10% through developing data simulation programs with NumPy in Python that outputs streams of bytes as data via TCP protocol
- Developed a multithreaded polling system in Python that detects requests from the firmware and sends them to an image recognition module for grip type configuration via socket communication.
- Implemented scripts that processed over 5000 EMG voltage signals for data analysis and visualization in real time with Matplotlib

City University of Hong Kong   **July 2022 - July 2022**
Software Developer   Hong Kong SAR
- Spearheaded the development of a heavily automated data system in Google Sheets using Google Apps Scripts and JavaScript to organize user information for admin purposes
- Automated 90% of logistical actions such as data archiving, emailing user notifications, and duplicate data detection
- Reduced the amount of administrative work required to maintain the Google Sheets data system by more than 90% through utilizing Google Cloud triggers to run maintenance scripts throughout each week

PROJECTS

Vehicle Streaming Platform | [Github](#) | (React, NodeJS, Express, OpenCV, Apache, RaspberryPi)   **2023**
- Co-led the development of a remote controlled Raspberry Pi vehicle with live video streaming, OpenCV facial recognition, and a controller interface in React.
- Built a multithreaded Python program that establishes a socket connection to the backend server for receiving keyboard inputs through HTTP requests while converting the received inputs into motor movement.
- Integrated a Node and Express backend with the frontend and the Raspberry Pi to specifically handle REST requests related to controlling the movement of the vehicle.
- Deployed the React application using Apache2 web server and set up automated Bash scripts that run RaspberryPi applications on startup.

Budgeting App | [Github](#) | (React, Express, MongoDB, NodeJS, Firebase)   **2023**
- Developed a multi-page React web application that tracks of a user's budget based on the total price of items entered into a list
- Created a REST API back-end system in Express and Node that routes client-side requests to HTTP methods
- Utilized Mongoose with Express to connect HTTP functions to customized data models held on a MongoDB database
- Implemented a registration/login system that allows users to save their account information by synchronizing data sent towards Firebase's authentication system with the database through HTTP requests

Imguessr.io | [Github](#) | (OpenAI, React, ExpressJS, NodeJS)   **2023**
- Spearheaded the creation of an image guessing game that utilizes AI-generated art as its image prompts
- Integrated OpenAI's Dall-E API with an Express backend to handle image generation requests from the client-side
- Utilized React as the frontend to create an interactive webpage, enabling a smooth gameplay loop