

Jack Hou

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Education

University of British Columbia, Vancouver, BC

Sept 2020 – May 2021

Bachelor of Applied Science – Computer Engineering

Work Experience

UBC Cloud Innovation Centre, Vancouver, BC

May 2020 – December 2020

Software Engineering Co-op

- Developed a solution to help predict MRI priorities for 10,000 MRI reports per month using AWS NLP services leveraging PostgreSQL text search functionality to match data with pre-defined rules with word weighting. Solution's UI developed in React using AWS Amplify, Lambda and API Gateway. More information at <https://cic.ubc.ca/projects/vch-mri-project-cant-wait/>
- Tabular data extraction project utilizing OCR and NLP from AWS Textract to ingest tabular data at scale from PDF/images, reducing the manual process of transferring data from multiple days to hours. More information at <https://cic.ubc.ca/projects/university-of-toronto-mississauga-economic-data-extraction/>

Advanced Telecommunications Research Institute International, Kyoto, Japan

Jun 2019 – Dec 2019

Software Engineering Co-op

- Optimized preprocessing and data storage of video data into HDF5 format using TensorFlow to increase training and testing speed of machine learning model from 18-24 hours to 6 hours per task
- Modified spatial clip lengths and integrated multiple additional datasets to the model to improve accuracy for 22 separate tasks by an average of 30%

UBC Clean Energy Research Centre, Vancouver, BC

Jan 2019 – Apr 2019

Software Developer Co-op

- Successfully developed a Django web application connecting to a database to display real time data from EV charging stations located in UBC for data-analysis and resource management
- Setup and migrated database from local MySQL test server to Microsoft Azure to increase reliability and robustness of solution

Canfor, Vancouver, BC

May 2018 – Aug 2018

Corporate Systems Summer Student

- Solved internal tickets in SAP SuccessFactors and managed documentation and groups in companies SharePoint efficiently, clearing the backlog of tickets and increasing response time

Projects

Location Based Application

Oct 2018 – Nov 2018

- Created a mobile application utilizing Android Studio and Go for backend that allows for a multiuser interface centered around photo features mapped to locations
- Deployed a Firebase database with Google App Engine to store and send data to users through HTTP requests written in Go within a second

Smart Lock

Mar 2018

- Designed keypad GUI and server connection on Raspberry Pi in Python, and used HTML and JavaScript to work on a webpage so users may register and update data to the server, resulting in an integrated product

Arm Motion Sensor

Jan 2018

- Worked with partner to create a C++ program that implemented the MYO Armband SDK to extract data for yaw, yawn, and pitch from the device when connected to the arms for a hackathon
- Setup an online database in AWS to receive data and display it in a frontend UI in HTML and JavaScript

Skills

- Python, AWS, Go, Java, JS, PostgreSQL, NoSQL, C, C++, HTML/CSS, Node.js, Django, Unity