Jed Yeo

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Education

University of British Columbia — Vancouver, B.C.
Bachelor of Applied Science in Engineering Physics, Minor in Honours Mathematics — *September 2017 – May 2023*

Experience

Research Assistant — April 2021 – Present
UBC Computer Science Department – LEAP Research Group — *Vancouver, B.C.*

- Investigated machine learning methods to conglomerate and classify medical data from multiple sources, improving accuracy by 10% and reducing compute time by a factor of 3x
- Refactored initial findings from the research group into a manageable and maintainable codebase with the intention of automating the classification process to aid in further research of the heuristic methodology

Developer Co-op — January 2020 – March 2020
Plantiga Technologies — *Vancouver, B.C.*

- Developed a data pipeline with Google Cloud Platform using Python and ReactJS to showcase anonymized patient data for an administrative interface, ensuring compliance with HIPAA standards
- Created an internal tool using Python and the Slack API which generated a patient report with past data and activities, optimizing data retrieval for the maintenance engineering team
- Gained experience with front-end web development and pushed weekly bug fixes to the internal Plantiga management dashboard, working on features such as data retrieval and information widgets

Electrial & Controls Co-op — May 2019 – August 2019
Dynamic Attractions — *Port Coquitlam, B.C.*

- Programmed a Human Machine Interface for the QA stage of a high voltage ride system which controlled the orientation of multiple robotic arms, as well as monitored values of interest such as robot position and cycle count, which expedited the testing phase of the project by weeks at a time
- Managed and configured the communications array of an oil-finding seismic generator to ensure system components were monitored and maintained according to operating procedure

Projects

Autonomous License Plate Reading Robot | *Python, ROS, Linux, Git* — December 2020

- In a team of 2, collaborated remotely to design and develop a fully autonomous virtual robot in ROS Melodic to read and identify license plates within a virtual world
- Used classical computer vision techniques to control the robot's movement by leveraging scipy functions and achieving a 100% completion rate of the circuit
- Designed a custom convolutional network with Tensorflow and Keras to identify alphanumeric characters on license plates, with the model reaching 99% accuracy on testing data sets

hireflow – Recruitment Management App | *ReactJS, Postman, Git* — September 2020

- Used ReactJS to design a modular dashboard for a new recruiting platform to display applicants and their profiles to recruiters
- Collaborated with the back-end team to ensure integration of the front-end components with the back-end server and database using Postman

Graph Datatype Universe Simulation | *Java, JUnit, gradle, Git* — September 2019

- Designed a graph datatype in Java to represent the traversal of planets in a fictional universe
- Implemented Djikstra's algorithm in combination with breadth-first search to find the shortest path between any two planets
- Engineered a custom spanning algorithm to maximize score received from visiting weighted vertices in the graph

Technical Skills

Languages: Python, Java, C/C++, Golang, ReactJS, scipy/numpy, tensorflow
Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio, IntelliJ