Bryan Wong Hong Liang

NUS, Year 2 Computer Engineering, Engineering Scholars Programme

Profile

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Portfolio: https://bryanwhl.github.io/

GitHub: https://github.com/bryanwhl

Programming Languages: JavaScript, C++, Python, Java, HTML/CSS, C, Dart, Visual Basic, Assembly, Verilog

Data Science: OpenCV, NumPy, Pandas, Scikit-Learn, Tableau, R, Keras, Matplotlib

Frameworks and Technologies: React, Vue.js, Node.js, Express.js, GraphQL, MongoDB, SQL, Flutter, AWS, Docker

Summary: I am a 22-year-old male undergraduate with diverse experience in Software Development and a passion in technology. I am part of the Engineering Scholars Programme, an accelerated bond-free scholarship programme. I aim to make a difference in people's lives through creating new technology that will benefit the world. I spend my free time working on software projects and on improving my technical skills. I'm also deeply interested in Computer Vision and Machine Learning, as well as UI/UX design to maximize the usability of applications that I develop.

Education

BEng in Computer Engineering (with Honours), National University of Singapore

August 2020 — May 2023 [ONGOING]

- Engineering Scholars Programme
- GPA: 4.67/5.00 (Highest Distinction)

GCE 'A' Level, Yishun Junior College, Singapore

January 2016 — December 2017

- 87.5/90 Rank Points, 5 Distinctions

Employment History

Software Engineering Intern at Protos Labs, a pre-seed stage Cybersecurity start-up

July 2021 — December 2021 [ONGOING]

- Worked alongside 2 cofounders in a pre-seed stage Cybersecurity start-up doing web development, backend development and architecture development
- Worked on using React and Redux to develop frontend user interface of the product
- Worked on solving diverse challenges and problems, including algorithmic and Machine Learning problems
- Working with various AWS technologies to implement authentication, microservices and to automate workflows
- AWS products worked on include AWS Amplify, Cognito, API Gateway, S3 and Lambda.

Full-Stack Developer Intern at DSO National Laboratories

May 2021 — July 2021

- Built a full Search Engine user interface with Vue.js, Vuex store and Vuetify library
- Built a dockerized microservice that provides functionality for Video and Audio transcription
- Worked with Elasticsearch and Java for the system's backend
- Set up microservice monitoring tool using Prometheus/Grafana and API endpoints to chart metrics data

Corporal First Class at Singapore Armed Forces (Conscription)

April 2018 — April 2020

Title: Software Developer/Chief Clerk

- Developed a telegram bot that now serves 500+ daily users, providing functionality for checking caféteria menus.
- Developed a web application that recreates Google Maps and its navigation functionality from scratch.
- Explored and tested Computer Vision algorithms for image processing, text extraction with Tesseract OCR
- Awarded the Best Soldier of the Month for my technology contributions to the unit.

Recent Hackathons & Project Experiences

Pet Social - Orbital 2021 (Highest Level of Achievement)

May 2021 — August 2021

- Ideated and created Pet Social, a website that serves as both a social media and an e-commerce platform. Pet Social is an all-in-one platform that digitizes and automates every aspect of being a pet owner. The platform aims to build a global pet community that will enhance the experience of owning a pet.
- The website uses the MERN stack, namely, MongoDB, Express.js, React and Node.js.
- Worked on all aspect of the project in a team of two, namely development of React UI using Material-UI library, creating API endpoints using GraphQL and Apollo Client, linking the application with a MongoDB database and hosting of website on Amazon Web Services EC2 instance.
- The project repository can be found here: https://github.com/bryanwhl/pet-social

NUS Data Science Competition 2021 (Theme: Computer Vision) by NUS Statistics & HP

January 2021

- Created a model that automates Computer Vision tasks as stated in the problem statement by the competition.
- Worked on using various Image Processing and Computer Vision algorithms to automate the counting of objects.
- Team emerged as a finalist team, finishing in the Top 10 position of the competition out of more than 260 teams.
- Our submission entry can be found here: https://github.com/bryanwhl/nus-data-science-competition-2021

NUS Hack & Roll 2021

January 2021

- Created a Mobile Application that informs users about carpark availabilities near his/her destination and carpark details, as well as to predict lot availability using Machine Learning.
- Worked on using the Flutter framework, Dart and Object-Oriented Programming to build the UI of the app, as well as to create HTTP requests to interface with external APIs.
- More information about the project can be found here: https://devpost.com/software/parkwhere

Extra-Curricular and Leadership

- Engineering Scholars Programme
    - **Vice President** of Engineering Scholars Programme Executive Committee (Current)
- Residential College 4 (University Town College Programme)
    - **Vice President** of College Student Council IT Committee (Current)
        - Managing multiple software projects for the committee
        - Created an automated welfare distribution and sign-up system using React (react-bootstrap UI Library) and Python Flask with RESTful APIs.
    - **Project Head** of OrcaTech (Current)
        - Managing technology projects for OrcaTech, the RC4 technology community.