
Bryan Beh Jen Yuen

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Profile

Aspiring Software Engineer with primary interest in automation, data science and backend engineering looking for Summer 2021 opportunities. I find simple pleasure turning mathematical concepts into innovative solutions; whether it be building efficient, scalable applications or a Python script to model the ocean's fluid dynamics.

Education

University of Southern California

08/2019 - 12/2021

- MS Computer Science - GPA: **3.68**
- Classes: Analysis of Algorithms, Programming Systems Design, Operating Systems, Database Systems, Machine Learning, Probability for Electrical and Computer Engineers

Imperial College London

10/2016 - 06/2019

- BSc Geophysics - GPA: **4.0** (First Class Honours)
- Final Year Thesis - Modelling Plate Motions of Western North America using Python and GMT
- Final Year Modules - Advanced C++ (top), Fluid Dynamics, Geophysical Inversion, Advanced Remote Sensing

Work Experience

Software Engineer Intern, Tesla

June - August 2020

- Created backend/infrastructure to integrate SCA applications (~200 users) with Status Page Monitoring System
- Standardised and automated method to collect and track metrics — HTTPS/DNS health checks, API Endpoint Monitoring, Database Connection & Query Monitoring, Service Account Validation
- Improvements: Reduced normal monitoring workflow/devops by 98%, Capture the status of every SCA application and micro-service in one dashboard; Email subscriptions for weekly health reports and downtime
- Tech Stack: Go for Backend API; AWS, Terraform, Docker for hosting; Postgres, MySQL, MSSQL Databases

Software Engineer Intern, Marshall Wace

June - August 2019

- In a team of 3, revamped and replaced data-monitoring web app that is used daily by the firm worldwide
- Improvements: Reduced website loading time by 70%, created new REST API layer, replicate existing features and added 8 new UI/UX features via constant communication with business users
- Tech Stack: Vuejs for client side, C# & .NET-based application for RESTful APIs, MS SQL for database backend; Git and BitBucket for version control, JIRA for Kanban board

Machine Learning Research Intern, Imperial College London

July - September 2018

- A statistical machine learning research at Data Science institute to assist medical decision-making
- Developed new methods for Bayesian Optimisation based on Bayesian Additive Regression Tree
- Participated in KDD 2018; Awarded UROP Maths Prize for outstanding research

Projects

Weenix Kernel OS

January 2020

- Implemented Processes and Threads handling, Virtual File System and Virtual Memory in OS
- Supports multithreading and file operations; Manages address space, runs user code and handles system calls
- Worked virtually with a partner for 2 months; C development in Ubuntu, GDB for debugging kernel code

Numerical Modelling C++ Coursework

March 2019

- A standalone application that builds models of geophysical fluid systems by finite approximation, performs error analysis and optimises parameters through inversion methods (top grade in cohort)

Skills

- Programming Languages: (Proficient) - Python, Go, Java, C (Familiar) - JavaScript, C++, SQL, R
- Systems: Git, Bitbucket, Docker, AWS (ECS, Lambda, API Gateway), Terraform, Unix, Ubuntu
- Extracurriculars: ACM, EAGE Event Officer, ICMS Dodgeball Club Captain, Actor MNight 2017, Poetry