

Joe Bu

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Education

University of British Columbia

BACHELORS OF SCIENCE - COMBINED HONOURS COMPUTER SCIENCE AND MATHEMATICS

Sep 2019 - Apr 2024

Dean's List: 85.1% Average

Skills

Languages Java · Python · C/C++ · C# · JavaScript · Terraform · Protobuf · HTML/CSS
Technologies React JS · Stencil JS · Git · Bash · SQL · PyTorch · Kubernetes · Docker

Work Experience

Datadog

New York, NY

SOFTWARE ENGINEER INTERN

May 2023 - Aug 2023

- Mapped **174 million Kubernetes logs into a readable format**, to debug and trace usage to a singular entity, using Python and Datadog API.
- Wrote rule validation endpoint **allowing all Datadog customers to validate new rules** on the Security API and the Front-End using Python, Java.
- Created 5+ Synthetics Tests running each hour and on all data centers, to monitor every rule endpoint on all API hosts, in Terraform.

Amazon

Vancouver, BC

SOFTWARE ENGINEER INTERN

May 2022 - Aug 2022

- Revamped a tool onboarding and management service **reducing the time for a tool to reach production from a week to 20 minutes**, using MVC architecture, CDK pipeline, and a server proxy, all created using Java and Spring Boot.
- Designed a Stencil Javascript web app **used by 10+ teams to create and manage admin tools**.

NETINT

Burnaby, BC

FIRMWARE ENGINEER INTERN

Sep 2021 - Apr 2022

- Optimized, debugged and refactored firmware using C and C++ for NETINT's latest video Transcoders.
- Rewrote NETINT's test query framework to **incorporate SQL queries, and accept JSON files, Jira Tickets, SQL tags and test IDs inputs**.
- Created a python program to **automate test collection for 20+ Performance Tests ran daily** by parsing results into an excel file template.
- **Automated the collection of 500+ daily test results from all hardware products** and parsing them into SQL and Jira using Python.

Competitions

AI to Predict Anesthetics Dosages Resulting in Mortality

Inter-University Big Data Challenge

PYTHON, PYTORCH, XGBOOST

May-Jun 2023

- Predicted mortality rate based on Anesthetics Dosages and initial patient status with an accuracy of 93.6%.
- Attempted to predict optimal Anesthetics Dosage over Surgical Operations, proved too invariant and complex, having an accuracy of 5%.

Flash

nwHacks

JAVASCRIPT, HTML/CSS, PRISMA, COCKROACHDB

Jan 2023

- Constructed a marketplace for UBC tutors with priority listings as a web application primarily focused on UI.
- Created the Back-end and Prima/Cockroach Database to store and retrieve students and teachers.

ChatSmart

Hack the North

REACTJS, FIREBASE, GOOGLE-CLOUD, AZURE, COCKROACH-DB, DJANGO, RUNE

Sept 17-19, 2021

- Designed the base of the messenger application in ReactJS. I.E. Adding users, sending messages between users and its interface.
- Wrote the JavaScript class to query and fetch query results for Landmark Classification from EdgeML and Rune.
- Connected all chat logs and chat files to Firebase's Firestore for storage and persistence.

Avoid-19

nwHacks

PYTHON, REACT.JS, NEXT.JS, VERCEL, FIREBASE, FOLIUM, NEXT, GOOGLE MAPS API, BESTTIME API

Jan 2021

- Formulated a risk score, determined by recent breakout statistics and how crowded an area is using the Google Maps API.
- Provided users with the safest path of travel from risk scores and proximity to an affected area.
- Created a showcase website for the software similar to Google Maps, using React.js, Next.js, Vercel and Google Maps API.

Committees

CS-Can

Waterloo, ON

WEBSITE AND FINANCE DEPUTY

Sep 2020 - Sep 2021

- CS-Can strives to represent all aspects of computer science and the interests of the discipline
- Determine monthly costs, income required, and how to optimize spending
- Maintain and update the student website using HTML/CSS