

Vandy Liu

<https://vandyliu.github.io/>

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EDUCATION

University of British Columbia

Bachelor of Science in Computer Science

Sep. 2017 – Apr. 2022

GPA: 93%

EXPERIENCE

Splunk

Sep. 2019 - Dec. 2019, May 2020 - Aug 2020

Machine Learning/Software Engineer Intern

Vancouver, BC

- Worked on Splunk's Machine Learning Experimentation Platform, a JupyterHub cluster on the cloud, using Kubernetes, Docker, GitLab and Python
- Decreased CI/CD MR pipeline time from 20 minutes to 10 minutes by using Docker BuildKit
- Improved cluster security by adding network policies for some Kubernetes components
- Added integration tests into CI/CD pipeline
- Implemented cull cron job to periodically kill unused notebook servers to save resources

Microsoft

Jan. 2020 - Apr. 2020

Software Engineer Intern

Vancouver, BC

- Worked on an open source Visual Studio Code extension: Device Simulator Express, an extension that lets users run their python code on simulated micro-controllers and deploy them to their tangible device
- The extension has over 3,600 downloads and an average rating of 4.8/5 on the Visual Studio Code marketplace
- Using Python, Typescript, React and the VS Code Extension API implemented the microbit library and simulator, including key components such as the display class, sensor classes, and deploying to the device
- Available at aka.ms/GetDSX and github.com/microsoft/vscode-python-devicesimulator

Amazon

May 2019 - Aug. 2019

Software Development Engineer Intern

Vancouver, BC

- Built a web app with AngularJS and Java used by the AWS Step Functions team to investigate and diagnose customer state machine problems
- Implemented new Step Functions APIs and fixed deprecated APIs in Java and tested them with jUnit and Mockito
- Automated the resolution of EC2 instance retirement tickets using Python, AWS SNS and AWS Lambda
- At an internal hackathon, built an Alexa skill with AWS Lambda and Node.js that tracks attendance for after-school programs

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, HTML, CSS, C, C++, SQL, Go

Technologies: React, AWS, Microsoft Azure, Docker, Kubernetes, Jenkins, Firebase, MongoDB, Git

PROJECTS

WhatsApp Soccer Drop-in Auto Reply Bot

Python, Docker, AWS (EC2, Lambda, CloudEvents, SNS), Microsoft Azure Cognitive Services

- A Python bot running on Docker containers in an EC2 instance that auto replies to WhatsApp group chat messages to ensure I get one of the limited drop-in spots for weekly soccer games
- Uses Microsoft Azure's machine learning (ML) and natural language processing (NLP) services to determine whether or not to reply to messages because some may be irrelevant
- Uses Lambda, CloudEvents and bash scripts to schedule the starting and stopping of the EC2 instance to lower runtime costs

NBA Box Score Quick

<https://vandyliu.github.io/boxscorequick>

React, Python, Flask, Heroku

- Architected and developed a full-stack web application that displays box-score stats for in-progress and finished NBA games on a user-selected day