

DAVE SHINH

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SUMMARY OF QUALIFICATIONS

- Very extensive experience with Python (Amazon AWS (Boto3), ORM SQL Alchemy, Pytest, Flask)
- Very extensive experience with many data store technologies (SQL Server, Redis, DynamoDB, S3, Business Objects Universe, Sybase SQLAnywhere, SQL Alchemy ORM)
- Extensive experience with Java (Spring Boot, Google App Engine, Android Studio, MySQL, Paho MQTT)
- Extensive experience with JavaScript (jQuery, AngularJS, Bootstrap ArcGIS, HTML5, CSS, Responsive development and more)
- Worked in AGILE SCRUM environments using Amazon AWS, Google Cloud, TFS, JIRA, Git/GitHub, SourceTree, Bitbucket, NPM, Maven
- 4-year honors bachelor's degree from University of Waterloo with co-op

WORK EXPERIENCE

Back End Developer – Cloud/Microservices Skywatch

August 2017 - Present

Responsible for scaling our workflow generation tool as well as integrating multiple satellite vendor APIs into a single microservice based API

- Utilize AWS and Lambda in a serverless architecture
- Started working under a senior developer, now responsible for my own domain
- Focused primarily on scaling. Enhanced workflow tool to enable parallel processing greatly reducing runtimes, all while remaining within Lambdas strict memory and time constraints
- Identified bugs and bottlenecks through load testing
- Further worked on scaling by implementing compression and decompression on all endpoints to increase the amount of data being sent over the wire. Compression/Decompression was made to be compatible with both Java and Python due to having a mixed tech stack
- Due to the microservice architecture, code deployed into production must conform in a way that allows existing events to pass through without breaking surrounding services
- Test driven development. Used Pytest along with Moto3 (Mock for Boto3) for python and Maven Surefire for Java. Test cases had to be extremely coherent due to the nature of working on the tool that all other services call back to
- Also worked on data integrations, migrations and participated in meetings and design discussion
- Worked with many AWS tools including Lambda, DynamoDB, S3, Cloudfront, Route53, Certificate Manager, IAM, CloudWatch, EC2 and more

CTO / Cofounder Eggplantr

March 2017 - Present

Responsible for creating an e-commerce application that will be used to sell and customize a product as well as integrating both software and hardware

- Created an API utilizing EC2, DynamoDB, S3, ELB, Route53, and Certificate Manager
- Integrating payments through Stripe and Paypal which interact with our back end
- Solely responsible for all development, deployment and maintenance
- Worked with a UI/UX designer to help come up with final design

Application Developer (Coop)

SAP

September 2016 – December 2016

Created a prototype that tests the ability to create custom solutions for an SAP IoT solution which also integrated a machine learning tool

- Worked directly with solutions architect to determine best solution for project
- Created an MQTT client using Java and Paho MQTT
- Received sensor data through MQTT protocol as JSON and used GSON to parse and reformat data
- Once data was converted, sent it into a StreamingLite project
- Created CCL/CCLScript to be run in StreamingLite to aggregate and filter incoming data
- Generated and integrated machine learning code from Predictive Analytics tool to also be used in StreamingLite project
- Created a presentation explaining the capabilities and limits for CCL/CCLScript and the machine learning tool
- Presented to the development team and executives, presentation consisted of explanation, live demo and question and answer session
- Wrote extensive comments and documentation to allow other developers to take over with minimal issues

Full Stack Developer (Coop)

Huang and Associates Analytics

January 2016 – April 2016

Worked on a production level application for a startup

- Worked with a team of 3 other co-op developers under 1 front-end manager and 1 backend manager
- Stored code using Sourcetree (Git) and worked using multiple branches
- Worked extensive hours before application demos in order to ensure a working application
- Helped younger co-ops with some of the more difficult code and best practices
- Provided extensive document due to complexity of the code and changing developers

Database

- Wrote both DDL and DML statements for an SQL database
- Initial database connection and configuration was already completed, modified tables as needed for specific pages

Server

- Used SQL Alchemy to query the database and Flask to create the API routes
- Sent back appropriate error codes and messages in order to improve debugging
- Utilized Redis to save and pull temporary information
- Followed strict guidelines and heavily commented in order to improve code clarity

Client

- Used a wide array of libraries/frameworks including AngularJS, Angular Materials, AGgrid, Bootstrap, flowJS and more
- Each page had a unique controller, template and service that all followed similar design patterns to keep all pages consistent. It also utilized directives for common elements
- Created a library that held AG-grid functions. This library handled the initial set up and cell-rendering functions for all grids throughout the application
- Followed an online style guide in order to keep the code behind all pages as similar and easy to follow as possible

GIS Developer / Programmer Analyst (Coop)
Toronto Transit Commission

May 2015 – August 2015

Worked on an ArcGIS route modification tool

- Worked alongside a backend developer
- Create the front end using ArcGIS's JavaScript API
- Created a way for users to easily and visually modify bus/streetcar routes

Edited existing Business Objects Universe for the reports which required extensive SQL

- Used Crystal Reports to create multiple reports for internal users
- Created reports using WEB Intelligence rich client for internal users
- Redesigned the universe to be more user friendly so users could create ad-hoc reports
- Tested reports to verify the data was accurate and fixed the visual display, so that it matched the old reporting system

Front-End Web Developer (Coop)
Envision IT

September 2014 – December 2014

- Developed the front end of a vacation tracking software (Internal employee provisioning software)
- Used JavaScript, AngularJS, JQuery and HTML/CSS to develop application
- Worked in an AGILE environment
- Used TFS with Urban Turtle to manage code
- Worked alongside the back-end developer to help my client communicate with his REST web service
- Had to convert application to work with IE8

Application Developer
Communitech

January 2014 – April 2014

- Developed NodeJS based application that primarily utilized Phonegap to allow for development across both IOS and Android as well as Mongoose (MongoDB) and BackboneJS for the back end
- Was given a template that took care of setting up the database and provided an example of a few webpages and some interaction between the server and the client
- Used the examples to build a Schema and used existing methods to post/get/update and delete information from the database
- Used a wireframe created by another student to create the HTML/CSS for the application
- Used GitHub to save files and Heroku to show the client progress for the application

EDUCATION

University of Waterloo - 4-years honors bachelor's degree with co-op (Honors Geomatics with Computer Science Minor)