BRIANNA WANG

SOFTWARE ENGINEERING @ University of Waterloo

brianna.wang@gmail.com
https://www.linkedin.com/in/briannawang
https://www.github.com/briannawang
https://briannawang.github.io/

SKILLS

LANGUAGES: Python, Java, JavaScript, C, C++, Scala, HTML, CSS, SQL, YAML

TOOLS, FRAMEWORKS: AWS (Lambda, DynamoDB, SQS), React.js, NodeJS, Vue.js, Spring/SpringBoot, PostgreSQL, Docker, Git

WORK EXPERIENCE

Genesys, Fullstack Developer – *Markham, ON* Jan 2023 – Present

- Developing and refactoring API endpoints on **AWS Lambda** in **Python** for serverless web applications, facilitating the cloud-based distribution and management of customer learning and training resources
- Building UI features in **Vue** and **TypeScript** and reworking **Axios** HTTP services for web apps serving **800,000** total users
- Writing E2E and unit tests in Python, and automated tests in **Java**, using **Jenkins CI/CD** pipelines to test and deploy apps
- Working with scalable noSQL databases using **AWS DynamoDB**

OMERS, Backend Developer – *Toronto, ON* May 2022 – Aug 2022

- Implemented business services in **Java** for searching/validating member information and data schema changes in **PostgreSQL**, supporting a new **SpringBoot** microservice to handle an expected **50,000** new users
- Designed an internal employee chat application with SpringBoot, hosted on **GCP**, implementing **REST API** endpoints to manage chats/groups and request authorization with Azure AD to build a shareholder-approved MVP
- Proposed and developed a custom user authentication system with Spring Security using basic auth and **OAuth2**, securing several SpringBoot apps that form the key microservices processing data of **500,000+** pension members
- Wrote **100+** unit and integration tests using the **JUnit** framework to fulfill >80% code coverage for 4 applications
- Troubleshot app deployments and smoke tested in non-prod environments using GCP and **Datadog** logs and metrics

PROJECTS

2D Platformer Game ↗ Feb 2023 – Present

- Creating a 2D platformer in Unity using **C#**, with a world map created on each playthrough using procedural generation

Scala Language Subset Compiler Sept 2022 – Dec 2022

- Built a compiler in **Scala** for a subset of the Scala language, including variables, arithmetic expressions, and procedures
- Implemented scanning, parsing, context-sensitive analysis, stack/heap memory to generate machine language programs

Custom Spotify Web App ↗ Jul 2022 – Oct 2022

- Built a single-page web application with **React** in **Javascript** to stream and control music from a web player using the Spotify API, and show detailed track data in a user-friendly manner, deployed on Heroku
- Implemented login functionalities to authenticate users with OAuth2, handling requests in an **Express.js** server
- Created a music player in the browser using the Spotify SDK, to customize streaming features and controls, select and play songs from playlists, and gather and analyze track metadata to more intuitively present to the user

COVID-19 Screening Device ↗ Oct 2021 – Jan 2022

- Created an automated face mask detector, body temperature sensor, and room capacity counter on a Raspberry Pi in **Python** as an alternative to manual COVID-19 screening
- Implemented face mask screening and processing components, using OpenCV and **TensorFlow** models to analyze a live video feed from an attached camera, with a real-time notification system for screening results

EDUCATION

Bachelor of Software Engineering, University of Waterloo Sept 2021 – Present

- **Cumulative GPA: 93.09** – 2x Term Dean's Honour List
- Relevant Coursework: Data Abstraction and Implementation, Linear Algebra for Engineering

AWARDS AND HONOURS

- Governor General's Medal: Graduated with the top high school average of 100%
- International Baccalaureate Diploma: Scored a full 45/45, in the top 98th percentile of graduates