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: Java, Python, C/C++, JavaScript, C#, SQL, Typescript, Scala, GraphQL
FRAMEWORKS: AWS (Lambda, DynamoDB, S3), Azure, SpringBoot, .NET, React, Vue, Node.js
TOOLS: Docker, PostgreSQL, GCP, Terraform, Jenkins CI/CD, Git

WORK EXPERIENCE

Rippling, Incoming Software Engineer Intern – *San Francisco, CA*   (Upcoming) Jan 2025 – April 2025

Microsoft, Software Engineer Intern – *Vancouver, BC*   May 2024 – July 2024
- Developed tools and improvements for the Xbox Games Technology Group's distributed build system in **C#** and **C++**
- Created a web app for the build system coordinator in **.NET** and C#, allowing developers across 3+ studios to easily monitor/configure virtual machine build workers managed in **Azure**
- Integrated a build progress visualizer as a Visual Studio extension, widely used at the studio/partners (~1000 engineers)
- Developed a POC tool to parse/convert makefiles to bespoke build configuration files, as part of early efforts to assist studios in migrating to a build system projected to save $XXX,000 annually

Autodesk, Software Engineer Intern – *Toronto, ON*   Sept 2023 – Dec 2023
- Developed **GraphQL** API services connecting Autodesk cloud platforms in **Java** using **SpringBoot**, creating and contributing to several key search/filtering and query features of an open beta-stage public API
- Created a GraphQL query complexity analysis POC, designing the router architecture, researching/writing specs, and implementing the cost algorithm, to enforce sophisticated rate limiting for all Autodesk Platform Services GraphQL APIs
- Rewrote the user profile service to encrypt PII and use local caching, improving data resolver latency by **15%**
- Built tools automating internal processes in **JavaScript**, including daily pipeline jobs parsing/validating 25000+ data points from downstream services, and scripts autogenerating 60+ API docs from the GraphQL schema

Genesys, Fullstack Developer Intern – *Markham, ON*   Jan 2023 – April 2023
- Created new **AWS Lambda** functions and API endpoints in **Python** for several serverless web applications, facilitating the cloud-based distribution and management of customer eLearning and training resources
- Refactored the learning service by optimizing backend logic, **DynamoDB** transactions, and **S3** uploads, and implementing a thread-local cache for HTTP request data, reducing lambda execution time by **30%**
- Built UI features in Vue and **TypeScript** and reworked Axios HTTP services for web apps serving **300,000+** users
- Enhanced monitoring infrastructure with Terraform to streamline the creation of 30+ New Relic alerts for SQS/DLQ

OMERS, Backend Developer Intern – *Toronto, ON*   May 2022 – Aug 2022
- Implemented new endpoints to batch upload, validate, and search pension member data in **Java** with **PostgreSQL**, supporting a new **SpringBoot** microservice to handle an expected **50,000** new users
- Proposed/developed a user auth system using OAuth2, for microservices processing the data of **500,000+** members
- Designed an internal employee chat application in SpringBoot, hosted on **GCP**, implementing REST API endpoints to manage chats/users and request authorization with Azure AD to build a shareholder-approved MVP

PROJECTS

2D Platformer Game ↗
- Creating a 2D game in Unity using **C#**, with custom algorithms for procedurally generated caves and enemy pathfinding

Scala Language Subset Compiler
- Built a compiler for a subset of the **Scala** language, supporting type checking, procedures, closures, garbage collection

Custom Spotify Web App ↗
- Built a music player web app with **React** and Spotify's API, including streaming, playlists, metadata displays, OAuth2 login

COVID-19 Screening Device ↗
- Created a face mask detector and temperature sensor on a Raspberry Pi in **Python**, using OpenCV and TensorFlow

EDUCATION

Bachelor of Software Engineering, University of Waterloo   Sept 2021 – May 2026
- Cumulative GPA: **94.00** – 4x selected for Term Dean's Honour List
- Yves and Cynthia Bled Women in Engineering Scholarship, President's Scholarship of Distinction