

Oliver Xie

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SKILLS

- **Languages:** Java, C#, JavaScript/TypeScript, Python, HTML, CSS, SQL (SQL Server, Postgres), Golang, C, C++
- **Platforms:** Windows, Linux, Amazon AWS, Microsoft Azure
- **Tools:** Docker, Pandas, Spark, Git, NoSQL (DynamoDB, Cosmos DB), Nginx

WORK EXPERIENCE

Amazon Web Services (AWS)

May 2022 - Aug 2022

Software Development Engineer (Intern)

Vancouver, BC

- Implemented customer-facing metrics for an upcoming serverless application integration service in Amazon EventBridge
- Defined metric names, dimensions, units, resolutions, and measurements for CloudWatch Metrics dashboards and APIs
- Adapted internal monitoring agent to run in a sidecar container pattern for ECS/Fargate service
- Continuously deployed code and infrastructure using AWS Cloud Development Kit (CDK) and AWS CloudFormation
- Wrote unit tests using JUnit and Mockito
- Fixed bugs in team development environments: Postman collections, IntelliJ run configurations, and Docker Compose

Change Healthcare

Sep 2020 - Apr 2021

Software Development Engineer (Co-op)

Richmond, BC

- Led multi-month ASP.NET Core identity server upgrade for all Change Healthcare Radiology Solutions instances
- Refactored code to use SOLID principles while maintaining existing configuration and Couchbase database access
- Secured file upload validation for C# PACS backend while supporting various DICOM and image formats
- Ported 30+ hotfixes over a 2-week sprint to the latest version to support a large-scale customer product upgrade
- Improved security and performance in Visual C++ modules by eliminating over 50 resource leaks and unsafe pointers

PROJECTS

Project Blue

Sep 2021 - ongoing

- Created a state machine using Python and an image classifier using Keras to automate gameplay for a mobile game
- Made a data pipeline to retrieve and preprocess 15,000 images from local gameplay and external videos
- Trained a neural network that classifies with 95% accuracy, speeding up clear times by 50%

Bilby Compiler

May 2021 - Aug 2021

- Built a compiler using Java that translates a procedural language to one-address (stack machine) code
- Implemented variables, branching, loops, type promotion, and function calls
- Applied test-driven development to validate requirements for each iteration

Pokémon Mystery Dungeon Speedrun Tracker

Apr 2020 - Aug 2021

- Prototyped in Django, now deployed on Azure Functions (C#) with GitHub Actions CI/CD
- Polled speedrun.com API periodically and used Cosmos DB to cache results
- Completely automated manual process (saving 2h/month), easily scaled to handle category reorganizations

BGC Coursys

May 2020 - Aug 2020

- Managed an agile team; solicited feature development and feedback from corporate client
- Automated employee course-scheduling using Node.js/Express and Postgres, reducing management time by 40%
- Used EJS and socket.io to show course waitlists and update enrollment in real-time
- Controlled project scope to allow on-time delivery despite losing 40% of team capacity
- Performed API testing using Mocha, Chai and Postman and UI testing using Selenium

EDUCATION

Simon Fraser University

Sep 2019 - Apr 2023

Bachelor of Science in Computing Science

3.84 GPA

- USES Scholarship with Distinction (full-ride tuition, estimated value \$35,000+)
- CSSS Director of Events: Organized social and academic events with 200+ attendance per semester
- CS Peer Tutor: Mentored students in first and second-year computing science classes
- HIVE Leader: Served as a virtual/physical orientation facilitator and a Wayfinding Champion (tour guide)