

Brayden Yip

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EDUCATION

University of Guelph

September 2019 - December 2024

Bachelor of Engineering, Systems and Computing

Guelph, Ontario, Canada

- Achieved 90% cumulative average across 6 semesters
- Relevant Courses: Data Structures, Object-Oriented Programming, Software Systems Analysis and Design, Microcomputer Interfacing, Modelling Complex Systems, Numerical Methods, Statistics
- Member of Aerospace Club, 2023 GryphHacks Executive team

EXPERIENCE

Software Engineer Co-op

May 2023 - September 2023

Clear Software

Waterloo (Remote), Ontario, Canada

- Currently developing a full-stack application with **React**, **MariaDB**, and **GraphQL** for a legal services firm

Software Developer Co-op

January 2022 - September 2022

NCR Corporation

Waterloo, Ontario, Canada

- Developed code for Java microservice-based REST application using **Spring Boot framework**, handling large-scale banking services with millions of accounts.
- Worked alongside a major client's support teams to determine root causes of performance degradation using Dynatrace and Kubernetes logs, allowing for a smooth rollout of a major update
- Optimized various API calls implemented in Spring Boot, which **resulted in 2x improvement in response time**
- Created Kubernetes job and Helm chart to manage file systems of clusters on a multi-tenant basis, enabling greater control of security and permission configuration
- Oversaw CI/CD process for code merges using Jenkins, preventing defects and security issues from being shipped
- Analyzed frequency and duration of errors in logs using a Python script in order to determine the root cause of severe issues
- Created new onboarding process with in-house API development tools and Postman to onboard several new engineers in less than half the time

PROJECTS

Molecule Visualization App | C, Python, SQL, JQuery

- Developed full-stack web application to parse chemical compounds from molecular data using C and Python, stored in an SQL database
- Created an HTTP API in Python to handle requests for chemical data
- Designed a responsive web client using JQuery and Bootstrap
- Rendered portable 3-D visualizations of complex molecules in SVG format

Spotify Discovery Tool | Python, Git

- Used the Spotify API library to create an application that provides suggestions using song metadata
- Won Best Presentation at Hack the Job 2022

World Weather App | JavaScript, Bootstrap, Node.js

- Developed an interactive app in a 4-person team that fetches detailed weather data from locations on a map
- Implemented GUI and map interaction features from OpenStreetMap API using JavaScript

Roguelike Video Game | Java, JUnit

- Built a functional prototype for a "Roguelike" video game in Java.
- Used object-oriented (SOLID) principles with a focus on fulfilling user stories
- Developed software in a test-driven manner using JUnit testing framework

TECHNICAL SKILLS

Languages: C, C++, Python, Java, SQL, JavaScript, Bash

Frameworks/Libraries: React, Node.js, JUnit, Spring Boot, Cucumber, Scipy, JQuery, GraphQL, Cassandra

Tools: Git, Docker, Kubernetes, Helm, PyCharm, Dynatrace, Elasticsearch, DBeaver, Postman