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COMPUTER SCIENCE

[View Summary Resume](#)

SKILLS

Programming Languages: C, C++, Go, Python, SQL, Bash, Java, VBA, HTML, CSS, R

Operating Systems: Windows, Mac OS, Linux

Project Management: Git, Jira, Slack, Phabricator

Tools: Redis, Android Studio, Unity, Adobe Photoshop & Dreamweaver, Grafana

Languages: English, French, Punjabi

EDUCATION

Candidate for Bachelor of Computer Science with French Minor (Co-op), 2022

UNIVERSITY OF WATERLOO — Waterloo, Ontario

Expected April 2022

Relevant Courses:

- | | |
|--|--|
| ~ Operating Systems | ~ Algorithms |
| ~ Foundations of Sequential Programs | ~ Designing Functional Programs |
| ~ Data Structures and Data Management | ~ Introduction to Combinatorics |
| ~ Computer Organization and Design | ~ Algebra for Honours Mathematics |
| ~ Object-Oriented Software Development | ~ Calculus 1 & 2 for Honours Mathematics |
| ~ Logic and Computation | ~ Linear Algebra 1 for Honours Mathematics |
| ~ Elementary Algorithm Design and Data Abstraction | ~ Probability |
| ~ Computer Security & Privacy | ~ Statistics |
| ~ User Interfaces | ~ Computer Networks |
| | ~ Discrimination in Computing |

WORK EXPERIENCE

UBER, San Francisco, California
Business Intelligence Team

Software Engineering Intern

May – Dec 2021

In my latest position, I returned to the Business Intelligence team at Uber, which works on creating software solutions that help to analyze business data. During my 8-month internship I worked on several projects. Most of my work was on the internal queryrunner system that runs queries on Uber's internal data. I worked to improve the performance of the queueing algorithm by implementing a caching system to cache repetitive queries that were overusing resources. The newly implemented system helped to save hundreds of thousands of queries from being run per week, saving resources and improving the health of the service. I also worked to surface a user interface that users could leverage to manage their past and present queries.

- Collaborated with other teams to maximize improvements for **query caching system**
- Developed several options for query caching system and presented to team
- Implemented caching system in **Go** for internal query system improving service performance
- Created **backend** endpoints for user interface that users can manage queries on
- Added ability to filter queries by user, date, status and type of query
- Presented and documented improvements from new caching system and presented them to stakeholders
- Received outstanding co-op evaluation

Additional Contributions:

- Debugged pipelines in **Python** for external systems that used queryrunner service
- Created **metrics** to monitor caching of repetitive queries
- Contributed to team **Code Yellow** to improve reliability of existing services

UNITY, Vancouver, British Columbia
Automation Team

Software Developer Intern

Sept – Dec 2020

During this position, I was on the Automation team at Unity, which works to create automated software solutions for projects. My team specifically worked to automate the testing process for multilevel projects. I worked on a confidential project to help automate the testing process.

- Created end-to-end testing **pipelines**, scripted in **Postman** and **Jenkins**
- Worked with customer to create a solution that fit for their team
- Wrote and tested multiple **REST APIs** with CRUD endpoints
- Created front-end dashboards using **React** and **HTML**
- Presented and documented testing solution to team
- Received outstanding co-op evaluation

Additional Contributions:

- Created user interface for customer to use for testing

UBER, San Francisco, California
Business Intelligence Team

Software Engineering Intern

Jan – Apr 2020

During my second internship at Uber, I was on the Business Intelligence team at Uber, which creates and manages software solutions to analyze business data. I worked on an important internal service used by many departments which runs queries on Uber's data. My project was designing and implementing a new queueing algorithm for queries to solve current issues in the existing system which include lack of a prioritization scheme and inefficient use of resources. I worked autonomously to determine new requirements, design two algorithm options, arrange design review meetings to select an option, create an implementation schedule and finally implement the new algorithm to production. It was a unique experience that allowed me to develop deeper technical knowledge with active exposure to project management in an industry application.

- Collaborated with key stakeholders to determine requirements for new system
- Developed two options for a new queueing algorithm, a **round robin** and **multilevel** queueing system
- Scheduled and led multiple **design meetings** to discuss and select algorithm
- Developed implementation schedule with milestones to monitor progress, tracked in **Jira**
- Coded round robin queueing system in **Go** with prioritization scheme, datasource resource management and scalable features
- New system achieves fairness in queuing with use cases including VIP users and rogue users
- Tracked action items against relevant developers for project dependent tasks
- **Tested** code locally, in staging, and in production to ensure new changes were successfully working
- Wrote **Bash** scripts to perform **load testing** on new system
- Created metrics and new graphs in **Grafana** to monitor queue sizes, health, and operations
- Conducted phased implementation to roll out new changes to **production**
- Presented and documented new service to show changes and future steps for project
- Received excellent co-op evaluation

Additional Contributions:

- Created cancel bulk endpoint with username, email and datasource filters to cancel running queries in bulk
- Updated frontend Grafana dashboard for staging environment

UBER, San Francisco, California
Customer Obsession Team

Software Engineering Intern

May – Aug 2019

During this position, I worked on the Customer Obsession team at Uber, which focuses on the support section of the app. I worked on a major production issue that the team was facing. I took on a backend engineering role and learned a new programming language, Golang. I also participated in weekly meetings with senior software engineers and other stakeholders to discuss my solution to the problem. By the end of the internship I was able to deploy my code to production successfully and even support a new production project for the last two weeks.

- Programmed in **Go** to implement new data structures and methods to existing code repository
- Participated in biweekly stand-up meetings with engineering managers to discuss solution

- Collaborated with diverse team to design efficient solution while maintaining best practices
- Conducted extensive **testing** for code to maintain overall coverage of 90%+
- Leveraged Uber internal tools to create **frontend** dashboard for team to view
- Scheduled meetings with relevant internal stakeholders to present project progress
- Presented detailed solution in **code review meetings**
- Deployed code to **production** and rolled out newly implemented features
- Managed weekly tasks using **Jira** and updated project development on storyboard

Notable Projects:

- Implemented blackhole detection dashboard to display incoming and outgoing rates of help tickets, and highlight tickets that are not being routed to corresponding customer service representatives
- Implemented distributed locking system to solve problem of dry queues, in which tickets are not being properly routed to customer service agents
- Implemented debug endpoint to show status of router when production issues occur

ADECCO EMPLOYMENT SERVICES, Mississauga, Ontario
Recruitment Team

Recruitment Administrator

Jun – Aug 2017

In my first job, I began as an administrative assistant and got promoted to a recruitment administrator in less than 3 months. My duties began with filing and organizing resumes. In just a few weeks I was tasked with covering the reception desk, booking appointments, and pre-screening candidates over the phone. I also began shadowing recruiters and interviewing candidates.

- Implemented new filing system for organizing resumes by skill set
- Held position of receptionist to answer calls, schedule meetings, speak with walk-in candidates
- Pre-screened over 500 candidates on the phone
- Read through over 1000 resumes and matched suitable candidates to open job positions
- Participated in department meetings to fill job openings from clients

PROJECT PORTFOLIO

Twitter Sentiment Analysis Website

July 2019

- Worked in group of 3 during 24-hour Yuuvis hackathon in San Francisco
- Created website using **HTML & CSS** to monitor tweets about companies
- Implemented search bar and graphs of statistics for companies to view
- Utilized **Twitter API** and **sentiment analysis** to determine if tweets are positive or negative

Chess Game

Apr 2019

- Designed and implemented chess in a group of 3 using **C++**
- Implemented observer pattern to organize code and follow software design principles

- Programmed extra features including human vs computer game
- Monitors illegal moves and captures pieces based on standard rules of chess

Virtual Reality App

Sep 2018

- Led a team of 3 during 36 hour Hack the North hackathon
- Created **virtual reality app** with calming environments for students to reduce anxiety
- Utilized **Unity** to design virtual environment and **Android Studio** to design app interface
- Tested sections of code before integrating with **Git**

Personal Website

Aug 2017

- Created a personal website and hosted it on **GitHub** using **HTML & CSS** to organize and showcase experiences
- Utilized a bootstrap design to create an easy to follow, intuitive interface

Home Appliances Database

Sep 2015 – Mar 2016

- Designed relational **database** of home appliances in Microsoft Access
- Created for parents to maintain records of appliances including warranty, model, serial number, price, and date of purchase
- Programmed macros in **SQL** for data entry forms and designed user interface features including buttons & main menu

Matching Memory Game

Feb – Apr 2015

- Designed game using **Java** as a brain exercise for memory loss
- Integrated and tested game on end users including friends and family
- Created main menu, difficulty selection, multiple levels & score tracking with aesthetic user-friendly design

AWARDS & SCHOLARSHIPS

UNIVERSITY OF WATERLOO, Waterloo, Ontario

President's Scholarship

Aug 2017

- Received entrance scholarship for 90%+ admission average from high school

ROYAL CANADIAN AIR CADETS, Caledon, Ontario

Air Cadets Long Service Medal

Oct 2016

- Received for six years of active involvement in the Air Cadets organization as a Warrant Officer Second Class, instructor & flight commander

EXTRA-CURRICULARS

AIR CADETS, Caledon, Ontario

Warrant Officer Second Class

Sep 2010 – Jun 2017

- Commanded 120 cadets in drill ceremonies & community events
- Instructed classes of 30 cadets on aviation, communication & leadership
- Awarded Long Service Medal in 2016 for 5+ years of service