Daisy Ma

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Education

University of British Columbia Vancouver, BC
B.Sc Computer Science *GPA: 4.2 / 4.33* Sept 2018 - Dec 2023
Coursework: Machine Learning and Data Mining, Advanced Relational Databases, Computer Vision, Computer Networking, Algorithm Design and Analysis

Skills

Programming Languages:	Python, Java, C#/.NET, C/C++, SQL
Frontend:	Typescript, Angular, HTML/CSS
Testing:	Selenium, JUnit, MSTest, Pytest
Tools/Environment:	Github, Visual Studio, Oracle, TeamCity, Azure DevOps, Splunk

Work Experience

Copperleaf Technologies Vancouver, BC
Software Developer Intern May 2022 - Dec 2022

- Designed and implemented 10+ **REST APIs** in **C#/.NET** environment for an investment optimization engine.
- Wrote dynamic hierarchical **SQL** query to detect circular dependency in Oracle DB.
- Resolved 10+ complex backend/frontend/DB bugs, maintaining **effective communication** with QA throughout.
- Built frontend components eg.data grid within **Angular** framework. Communicated with UI designer throughout.
- Constructed a new database schema using Oracle SQL.
- Created isolated, readable **unit tests** in MSTest to thoroughly test the code.
- Presented a new team-developed feature to the entire engineering team in a clear and concise manner.

Broadcom Software Vancouver, BC
Software Developer in Test Intern Sept 2021 - April 2022

- Wrote and maintained 40+ automated tests using **Selenium**.
- Wrote 50+ robust **REST API tests** in Pytest, covering positive, negative, and permission scenarios.
- Adapted to agile practices such as sprint planning and daily standups in a fast paced scrum team.
- Utilized **CI/CD tools** such as GitHub and TeamCity.

Projects

Personal Project - File Organizer Automation Script 2024 *Python* github.com/daisyuma/File-Organizer

- Utilized Python's watchdog observer to monitor newly downloaded files. It identifies similar file names based on Fuzzy string matching score, and organize them into a designated folder.

Machine Learning Projects - 2023 *python*

- **Data Classification**: Implemented and compared Decision Tree and KNN on a dataset of 400 US cities to classify whether each state was a red or blue state in the 2012 election, with highest 0.934% validation accuracy.
- **Dimension Reduction**: On a dataset containing 50 animals and 85 features, implemented PCA to visualize dataset in a lower dimension. Learned 14 PCs to explain 75% of the variance in dataset.
- **Robust PCA for Background Subtraction**: Implemented Robust PCA to detect cars on a highway, analyzing a dataset where each row represents the pixels from a single frame of a highway video.
- **Image Classification into 10 Classes**: Utilized PyTorch Deep Learning layers to learn the optimal Convolutional Neural Network on the CIFAR10 dataset, achieving a validation accuracy of 52%.

Internship Project - Server Status Dashboard 2022 *Python, Flask, HTML/CSS*

- Built a Flask webpage that displays the status of multiple company servers asynchronously. Uses Vault to authenticate users.

Hackathon - Company Hackathon 2021 *Python*

- In a group of 4, utilized python pandas and bokeh lib to build a script that queries automation test report and generates a visualization of the data, then emails the visualized data to registered users

Hackathon - BizHacks 2020 *Java, Java Swing* github.com/daisyuma/BizHack-Project

- Modeled a virtual sales associate at Best Buy. The algorithm recommends products based on the user's input data to a series of questions. Utilized Swing to build a simple UI.

School Project 2020 - Facebark *PHP, MySQL* github.com/daisyuma/Facebark

- Used relational database to implement a social media platform that stores information about dogs and their owners. Allows user to query for aggregated data of their dogs.