

Daisy Ma

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EDUCATION

University of British Columbia

B.Sc Computer Science *GPA: 4.2 / 4.33*

Coursework: Machine Learning and Data Mining, Advanced Relational Databases, Computer Vision, Computer Networking, Algorithm Design and Analysis, Computer Hardware and Operating Systems

Vancouver, BC

Sept 2018 - Dec 2023

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, MongoDB, Azure DevOps, TeamCity

WORK EXPERIENCE

Copperleaf Technologies

Full Stack Software Developer Intern

Vancouver, BC

May 2022 - Dec 2022

- Developed 10+ REST APIs in C#/.NET for a data analytics engine, enabling users to visualize 50% more data quality issues.
- Detected circular dependencies in Oracle DB by writing dynamic hierarchical SQL queries, aiding users in identifying problems in their dataset.
- Developed frontend components using Typescript and Angular, utilizing data binding to build a data grid that fetches data on demand, improving performance by 33%.
- Implemented a new database schema in Oracle for a data optimization feature, utilizing indexing strategy to significantly enhance data retrieval speed.
- Developed reusable unit tests by applying Factory Design Pattern to create test data, reducing code duplication and improving test scalability.
- Presented a new team-developed feature to the engineering team, using clear communication to highlight technical enhancements and suggest improvements for user experience.

Broadcom Software

Software Developer in Test Intern

Vancouver, BC

Sept 2021 - April 2022

- Implemented and maintained 50+ automated tests using Selenium Webdriver and Python, resulting in a 50% reduction in manual testing efforts.
- Wrote 50+ robust REST API tests in Pytest framework, covering positive, negative, and permission scenarios, achieving a test coverage of above 90%.
- Conducted regression testing on software releases, identifying and accurately reporting defects in scrum meetings.
- Analyze API test performance issues using Splunk, troubleshooting long execution time.
- Developed a webpage with Flask to display real-time status of 20 company servers, aiding developers in monitoring server health.
- Developed a Python script to fetch automation test reports and generate graphs from the data, allowing QAs to visualize test results.

PROJECTS

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

- Utilized Python's watchdog observer to monitor newly downloaded files, 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.
- **Data Visualization and De-noise:** Implemented PCA to visualize a dataset containing 50 animals and 85 features in a lower dimension, learning 14 PCs to explain 75% of the variance in dataset.
- **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%.

Relational Database Project - Facebark 2020 *PHP, MySQL*,

github.com/daisyuma/Facebark

- Implement a social media platform that stores information about dogs and their owners using relational database, allowing user to query for aggregated data of their dogs.