Daisy Ma

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EDUCATION

University of British Columbia — Vancouver, BC
B.Sc Computer Science *GPA: 4.2 / 4.33* — Sept 2018 - May 2024
Coursework: Machine Learning and Data Mining, Advanced Relational Databases, Computer Vision,
Computer Networking, Algorithm Design and Analysis, Computer Hardware and Operating Systems

SKILLS

Programming Languages:	Python, Java, C#/ .NET, C/C++, SQL, PHP
Web Technologies:	Javascript, Typescript, Angular, React, HTML/CSS
Testing:	Selenium, JUnit, MSTest, Pytest
Tools/Environment:	Oracle, MongoDB, SQL Server, Azure DevOps, Github, Visual Studio, Linux

WORK EXPERIENCE

Copperleaf Technologies — Vancouver, BC
Full Stack Software Developer Intern — 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, built 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 data visualization feature to the engineering team, emphasizing UI enhancements for improved user experience.

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

- 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 reported data, allowing QAs to visualize test results.
- Implemented and maintained 50+ automated tests using Selenium Webdriver and Python, resulting in a 65% 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 89%.
- Conducted regression testing on software releases, identifying and accurately reporting defects in scrum meetings.
- Analyzed API test performance issues using Splunk, troubleshooting long execution times.

PROJECTS

Piano Practice Tracker 2024 *MongoDB, React, Express, Node* — github.com/daisyuma/Piano-Practice-Tracker

- Developed a full-stack application to manage song practice for a band, incorporating CRUD functionalities with REST APIs and MongoDB.
- Integrated Spotify public API to provide artist information and redirection within the app.

Machine Learning Projects - 2023 *Python*

- **Data Classification**: Implemented Decision Tree and KNN models on a dataset of 400 US cities to classify whether each state was a red or blue state in the 2012 election, achieving 0.934% validation accuracy.
- **Data Visualization and De-noise**: Implemented Principal Component Analysis to visualize a dataset containing 50 animals and 85 features in a lower dimension, which explains 75% of the variance in dataset.
- **Image Classification into 10 Classes**: Utilized PyTorch Deep Learning layers to train the optimal Convolutional Neural Network on the an expansive dataset, achieving a validation accuracy of 52%.

Relational Database Project - Facebark 2020 *PHP, MySQL, HTML/CSS* — github.com/daisyuma/Facebark

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