YIPENG(CODY) LIU

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EDUCATION

Simon Fraser University   Sep. 2021 - May. 2023
Master of Science in Computer Science, Visual Computing   (GPA:3.89/4.33) **Burnaby, Canada**

University of Manitoba   May. 2017 - May. 2021
Bachelor of Computer Science, Honours   **Winnipeg, Canada**

SKILLS

Programming Languages:	**Java, HTML/CSS, JavaScript, Python, C++, SQL, MATLAB**
Libraries:	**Bootstrap, jQuery, Numpy, Pandas, Matplotlib, Scikit-learn, Junit**
Development & Tools:	**AWS, Docker, Spring Boot, React, Node.js, PyTorch, Git, Unity**

WORK EXPERIENCE

Co-op Pharmaceutical Analytics   Sept. 2022 - Dec. 2022
Data Analytics job (BC Ministry of Health)   *Victoria. BC*

· Employed data models to perform an **Uncertainty Analysis** of **Business Impact Analysis (BIAs)** to assess and improve the accuracy of financial decisions for new healthcare policies.
· Utilized **Oracle RDBMS** to extract complex, relevant drug-related data from **PharmaNet**, a system handling over **75 million** transactions annually, showcasing strong data retrieval skills.
· Created and fine-tuned **Regression models** and **T-Tests** to find the parameters lead to greater forecasting errors, using tools such as **Python** and **R**, showcasing data modeling and statistical analysis expertise.
· Developed a framework for ongoing data collection and analysis to continuously improve predictive models.
· Effectively visualized and presented analytical results using **Excel**, **Matplotlib** and **Power BI**, prepared an insights paper for stakeholders to communicate findings and recommend improvements.

PROJECT EXPERIENCE

Fleet Management System   Aug. 2023 - Oct. 2023

· Developed a Comprehensive Fleet Management System to enable organizations to efficiently manage and optimize their vehicle fleets with features such as vehicle tracking and maintenance management.
· Designed the front-end using **Bootstrap** and **jQuery**, and the back-end with **Spring Boot** and **Thymeleaf**.
· Implemented full **CRUD** functionality for managing users, vehicles, and employees.
· Ensured data integrity and persistence using **MySQL** and **Spring JPA** and developed a **RESTful API** to facilitate seamless data flow between the front-end and back-end.
· Enhanced system security through user authentication and registration processes using **Spring Security**.

React Based Background Management System   Sept. 2021 - Dec. 2021

· Developed a **MERN** Stack Background Management System to help users manage their business.
· Designed the front-end with **React** and **Webpack**, and the back-end with **Node.js** and **Express.js**, ensuring persistent data storage with **MongoDB** and managing HTTP requests using **Axios**.
· Implemented key features including user management, commodity classification management, commodity management, and authority management.

Time Genie   May. 2020 - July. 2020

· Utilized **Android Studio** to create a mobile scheduling app that helps users manage their tasks.
· Designed the front-end using **XML** and the back-end using **Java**, with **SQLite** for persistent data storage.
· Implemented **CRUD** functionality for user events, time reminders, and alarm notifications.
· Employed Test-Driven Development **(TDD)** with **JUnit**, achieving over **80%** test coverage.
· Developed **automation testing** framework and used **GitLab** to implement **CI/CD** processes.