YIPENG(CODY) LIU

(+1)204-955-9058 —— yipenglliu@gmail.com —— LinkedIn

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: **jQuery, Bootstrap, Numpy, Pandas, Matplotlib, Scikit-learn, PyTorch, Junit**
Development & Tools: **AWS, Docker, Spring Boot, React, NodeJS, 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** for **Business Impact Analysis (BIAs)** pertaining to the 2018-2020 fiscal year.
- Extracted pertinent drug-related data utilizing **SQL**, demonstrating strong data retrieval capabilities.
- Created and fine-tuned data analytic models using tools such as **Python** and **R**, showcasing data modeling and analysis expertise.
- Effectively visualized and presented analytical results using **Excel** and **Matplotlib**, enhancing data-driven decision-making within the pharmaceutical analytics team.

PROJECT EXPERIENCE

Fleet Management System
Aug. 2023 - Oct. 2023

- Developed a comprehensive Fleet Management System based on a **Bootstrap** HTML template, using **Spring Boot** and **Thymeleaf**, enables organizations to efficiently manage and optimize their vehicle fleets, incorporating features like Vehicle Tracking and Maintenance Management.
- Implemented CRUD (Create, Read, Update, Delete) functionality for all system components, including user, vehicle, and employee management, utilizing **Spring Boot**, **Thymeleaf**, and **jQuery**.
- Ensured data integrity and persistence using **MySQL** and **JPA**.
- Implemented robust user authentication and registration processes with **Spring Security** to enhance system security and manage user access.

3D Plant Model Reconstruction Using Deep Learning
Sept. 2021 - Dec. 2021

- Evaluated six most popular Point Completion Neural Networks, including **PF-NET** and **PCN**, for the reconstruction of incomplete 3D plant models, and compared their **Chamfer Distance**.
- Generated 3D plant object dataset using **Vlab**, then transferred the object dataset to **Point Cloud** dataset.
- Demonstrated expertise by adapting widely-used Point Completion Neural Networks, training them with our proprietary dataset, and fine-tuning hyperparameters to optimize model performance.

Time Genie
May. 2020 - July. 2020

- Spearheaded the development of an **Android** mobile scheduling app within a collaborative team of four.
- Designed and maintained a robust, persistent database using **SQLite** to ensure data integrity.
- Utilized essential **Android Studio tools** for UI design and implementing CRUD features.
- Adhered to **Agile development principles**, fostering an iterative and efficient development process.