Janice Zhu

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Education

Bachelor of Engineering (B.Eng.): *Software Engineering* **Sept 2020 - May 2025**
Toronto Metropolitan University

- **Programming Coursework:** Object-Oriented Programming, Data Structures and Algorithms, Software Architecture
- **EE Coursework:** Microprocessor Systems, Computer Architecture, Logic Design, Circuits, Signal Processing

Languages and Technologies

- *(proficient)*: C, Java, SQL, MATLAB, VHDL, Assembly, *(familiar)*: Python, JavaScript, HTML/CSS, VBA, Bash
- React.js, Django REST, Scikit-learn, NumPy, SciPy, LightFM, Apache Tomcat, Java Servlet, JUnit
- Git, MySQL, Visual Studio Code, Eclipse, Microsoft Suite

Academic and Personal Projects

Personal website: *www.janicezhu.com* (for additional information and projects)

Music Controller Web Application | 2023 – 2024

- Developed a web application using the Django REST Framework and React.js for groups of users to create/join rooms that enables controls on the music playing from the host.
- Designed REST backend server enabling room data to be stored persistently in an online database.
- Integrated the Spotify API enabling users to view and control the music playing from their Spotify account.
- Utilized: Python, JavaScript, React.js, Django REST Framework, HTML/CSS, GIT, Visual Studio Code

Robot Maze Navigation Program |2023

- Developed and implemented a program for a robot that can find its way through a maze by reading data off the sensor signals and bumper switches
- Added a self-steering system that periodically adjusts the robot to the center of the path in a maze
- Utilized: Assembly Language, HCS12 microcontroller, an *eebot* mobile robot

Prediction Systems | 2023

- Developed a system that trains on a dataset to generate movie recommendations for users
- Added a gender prediction system that classifies the gender of a person based on given test data
- Utilized: Machine Learning, Python, Scikit-learn, NumPy, SciPy, LightFM

Movie Store Database | 2022

- Developed a database system for a movie store that enables user account information and movie data to be stored persistently in an online database.
- Designed an ER Diagram to visualize the data requirements and business rules for the system
- Implemented a Unix Shell Menu enabling a connection with the Oracle Database to manage and query SQL tables
- Utilized: SQL, Unix-Shell Scripting, Oracle Database

Bookstore Application | 2021

- Developed a GUI-based application that allows users to login, view, and purchase books
- Designed a class diagram that models the objects and their relationships to visualize the functionalities of the app
- Utilized: Java, Object-Oriented Programming, JavaFX, UML, NetBeans