Edward Jiazhen Tan

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EDUCATION

University of Rochester **Rochester, NY**
Dual Bachelor of Science, in Computer Science and Business *Anticipated May 2025*

- GPA: 3.6 of 4.0

PROJECTS & EXPERIENCES

Gambling Website Based on Python-Flask **Rochester, NY**
Independent project *March 2023*

- Collected username and password by WTForms and hashed them through Flask-SQLAlchemy.
- Provided multiple games including blackjack and slot machine based on JavaScript.
- Properly used HTML and CSS files in Python3 virtual environment templates and statics.
- Show user's score only after clicking sign out button by implementing AJAX and jQuery.

Artificial Intelligence Agent Player for Reversi (Othello) **Rochester, NY**
Group project *February 2023*

- In a group of 3, developed an AI agent by implementing the mini-max algorithm in Java.
- Generated boards from 4*4 to 8*8 according to player by implementing 2D arrays.
- Allowed players to choose the depth of the algorithm for more reasonable runtime and lower difficulty.

File Compressor Based on Huffman Tree **Rochester, NY**
Independent project *December 2022*

- Read a file, encoded it into a Huffman tree, and generated a frequency file and a binary file by java.
- Decoded the compressed binary file base on Huffman tree built by frequency file, saving 40% of disk space.

Star Wars Characters Collection **Rochester, NY**
Independent project *November 2022*

- An iOS mobile app based on Swift UI, obtained JSON file from open-source API, got a character's picture, age, species, gender, episodes, and alias by its name.

Plan Charging Station in Rochester **Rochester, NY**
group project *September 2022*

- In a group of 6, found the most efficient vehicle charging stations in Rochester by Python.
- Employed mathematical models (exhaustive method and squeeze theorem) to calculate the total driving distance for each position.
- Used drobox and git comment to team work virtually during covid.

Arduino Hexapod Robot **Rochester, NY**
Independent project *December 2021*

- Programmed in C++ on an Arduino microcomputer, controlling the action of the robot with 14 micro motors.
- Utilized infrared and sonar detection, the robot could automatically drive following a painted black line while avoiding obstacles.

SKILLS

- **Frontend development**: Proficient in HTML, CSS, and JavaScript, with experience using Python Flask to build web applications and using AJAX and jQuery to create dynamic and interactive web pages.
- **Backend programming**: Proficient in Java and Python, skilled use of data structure and algorithms.
- **Operating Systems**: Capable of coding in macOS, windows 7/10 and arch Linux.
- **Group working:** Familiar with git commit and GitHub, sufficient experience in cross-field cooperation.