SHIH-HSIN CHUANG

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Technical Skills

Languages: Python, Java, C, R, JavaScript, HTML, CSS
Frameworks/Libraries: JUnit, ReactJS, Java Swing, Tkinter, pandas, Pygame, Textstat
Tools: Git, GitHub, Application Programming Interface (API), LaTex, Jupyter, MS Office

Education

University of Toronto St. George Campus - Trinity College　　　　　　　　**Sep. 2022 – May 2026**
Honours Bachelor of Science - Computer Science Specialist & Mathematics and Statistics Minors　　*Toronto, Canada*
- **CGPA**: 4.0/4.0
- **Relevant Coursework**: Software Design, Software Tools & Systems Programming, Theory of Computation, Data Structure & Analysis, Computer Organization
- **Awards**: Dean's List Scholar, Chancellor's Scholarship

Experience

Team EMQ & Intel Tech Intern　　　　　　　　　　　　　　　　　　**May 2023 – Jul. 2023**
Teamwork Global - University of Warwick　　　　　　　　　　　　　　　　　　*Remote*
- Conducted analysis of the characteristics, performance, and suitability of MQTT over QUIC protocols through testing and benchmarking under various packet-dropping rates to simulate different network environments
- Demonstrated the functionality and working of MQTT and QUIC on Intel AIXBoard for IoV scenario

English Language Instructor　　　　　　　　　　　　　　　　　　**Jul. 2020 – Aug. 2022**
Community Tutoring (Freelance)　　　　　　　　　　　　　　　　　　*Hsinchu, Taiwan*
- Assisted adults with formal writing essential for the workplace, guiding structure, clarity, and effective communication
- Practiced English conversation and writing mechanics with children in an engaging manner

Coding Camp Teaching Instructor　　　　　　　　　　　　　　　　**Jul. 2021 – Aug. 2021**
CodingAPE School　　　　　　　　　　　　　　　　　　　　　　*Hsinchu, Taiwan*
- Led engaging discussion sections for 30+ students, fostering collaborative group discussions, and provided personalized support for their Python final projects
- Reviewed course materials with the lead instructor and organized students into groups based on their learning progress

Projects

Music Tastes Friend-Making App | *Java, Swing*　　　　　　　　　　　　　**December 2023**
- Utilized various endpoints of Spotify API to retrieve relevant features of user's Spotify playlists, enabling the matching based on shared music tastes functionality
- Implemented four distinct matching strategies, incorporating Jaccard similarity coefficient and Cosine similarity calculations to derive accurate similarity scores between users
- Created a GUI using Java Swing that manages user actions, such as editing profile and sending requests
- Developed and executed comprehensive JUnit tests for all entities and interactors, achieving 100% code coverage

Movie Recommendation System | *Python, Tkinter*　　　　　　　　　　　　**March 2023**
- Applied collaborative filtering technique to generate personalized movie recommendations based on a database containing over 270,000 real-world movie reviews
- Ran the algorithm with both training and testing datasets, achieving an average matching accuracy rate of 92%
- Utilized Tkinter to create a GUI that supports user actions, including the selection of desired genres, writing movie reviews, and displaying recommendation results

Article Readability Classifier | *Python, Textstat, pandas*　　　　　　　　**Feburary 2023**
- Developed an NLP program to assess the reading level of news articles, tailoring results based on the user's age group and preferred article category
- Incorporated the Dale-Chall Readability Score from Textstat to calculate and determine the readability of articles

Leadership / Extracurricular

- Scotiabank Unlock Your Future Technology Mentorship Program
- UofT Preparation for Research through Immersion, Skills, and Mentorship (PRISM)
- Only Human Dance Company Marketing/Social Media Director