# Shih-Hsin Chuang

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# Technical Skills

Languages: Python, Java, C, R, JavaScript, HTML, CSS

Frameworks/Libraries: React, Bootstrap, Swing, JUnit, NLTK, Tkinter, pandas, Pygame, Textstat Tools: Git, GitHub, Application Programming Interface (API), Virtual Machine, Project Jupyter, MS Office

# Education

# University of Toronto St. George Campus - Trinity College

Sept. 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

- Analyzed the characteristics of MQTT over QUIC protocols through testing and benchmarking using virtual machines
- Simulated various network environments with different packet-dropping rates to evaluate the protocol's performance
- Demonstrated the functionality and operation of MQTT and QUIC on the Intel AIXBoard for an 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, JSON

Oct. 2023 - Dec. 2023

- Utilized various endpoints of the Spotify API and worked with JSON objects to retrieve relevant features of users' Spotify playlists, enabling them to match based on shared music tastes
- Created a GUI using Java Swing that manages user actions, such as editing profile and sending requests
- Developed and executed comprehensive JUnit tests, achieving 80% of the codebase coverage

#### Movie Recommendation System | Python, Tkinter

Mar. 2023 - Apr. 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, NLTK, pandas

Hack the MIST 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 NLTK library and Flesch-Kincaid Grade Level measure to calculate and determine the readability of articles

# Extracurricular

- Scotiabank Unlock Your Future Technology Mentorship Program
- UofT Preparation for Research through Immersion, Skills, and Mentorship (PRISM)