

Gerald Ju

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EDUCATION

Bachelor of Engineering (Honours)
Diploma in Professional Engineering Practice
University of Technology Sydney (UTS)

Mar 2018 – Feb 2024

Major: Data Engineering
Sub Major: Cyber Security

TECHNICAL SKILLS

Main Language	Python
Machine Learning	Audio and Image Learning using PyTorch
Other	Pandas, Jupyter, PyQt/PySide, SQL, FastAPI, Pydantic, HTML, CSS, JavaScript, React, Java, C, Microsoft Products

EXPERIENCE

Freelance Python Automation

Aug 2020 – Current

- Created automated workflows for data extraction, transformation, and loading (ETL) from various data sources.
- Created multiple GUI's using the QT framework.
- Developed and maintained Python scripts to automate repetitive tasks, reducing manual work by 80%.
- Some Examples Include:
 - RSA Encryption and Decryption of files.
 - Sending automatic Email and SMS notifications.
 - MP3, WAV and M4A Conversion using FFmpeg.
 - Web Scraping websites using Selenium.
 - Program that connects to Twitch API and takes Twitch "Chat" input and converts it to computer input to play games with.
 - Program to download YouTube audio, videos and playlists.

Web Development

Mar 2023 – Current

- Built a RESTful API using Node.js and Express with an HTML/CSS/JS frontend and integrated them with a MongoDB database, providing efficient CRUD operations.
- Built a RESTful API using FastAPI, SQLAlchemy and Pydantic with an HTML/CSS/JS frontend and integrated them with an SQLite database.

Thesis**Mar 2022 – Nov 2022**

- Applying Machine Learning and Audio Analysis Techniques to Katydid Acoustic Signals
- Convert audio to images (Mel spectrograms) using Librosa for use in image analysis.
- Used the PyTorch library to analyse and create a prediction based on limited audio/image data.

FPT Software - 2nd Internship (Remote during Covid)**Nov 2021 – Mar 2022**

- Summer Internship at FPT Software (a global IT services provider headquartered in Hanoi, Vietnam, being the core subsidiary of the FPT Corporation) as a web page developer using ReactJS.

Komatsu - 1st Internship**Aug 2019 – Jan 2020**

- Internship at Komatsu (Japanese corporation that manufactures construction, mining, forestry and military equipment) as a Data Engineer that worked on multiple different projects such as an Apriori recommendation system.

Group Project Leader**Apr 2018 – Sep 2022**

- Lead multiple groups during university study.
- Developed a simple Android Application.
- Nominated group leader among 2nd and 3rd years as a 1st year.
- Maintained and kept the group connected through various communication skills.

EXTRACURRICULAR ACTIVITIES

Cooking

- Meal Prep and cooking for the family.

Coding

- Encountering problems and automating solutions in both codewars/leetcode and daily life.

Kendo

- Participated in the 2018 and 2019 UniSport Nationals as a UTS representative.

Painting

- Enjoy occasionally sketching and water colouring pieces as a creative outlet.