



# YAP WEI HAU

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## SKILLS & ABILITIES

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Familiar with programming (Python, SQL, C#, NI LabVIEW)

Data Manipulation & Visualization (Tableau, Numpy, Pandas, Matplotlib)

Machine Learning/Deep Learning (PyTorch, Sci-kit Learn, Neural Network, Transformer)

Exposure to web app deployment on Cloud (Streamlit, Heroku, Render)

Database: MySQL

## NOTABLE PROJECTS

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May 2023

- **Multi-horizon Time Series Sales Forecasting with Deep Learning**
- Built a Temporal Fusion Transformer (TFT), a Transformer-based model
- Data cleaning and data preparation from scratch based on PyTorch TimeSeriesDataSet format
- Demonstrated the interpretability of the attention-based DNN model through data visualization

April 2023

- **Movie Recommender with Ranking System**
- Built a Collaborative Filtering based recommendation system
- Integrated ranking algorithm in terms of similarity score to further enhance the system
- Tweaking the parameters in the ranking algorithm to optimize the performance
- Deployed the interactive web app and hosted onto the cloud using Render

Jan 2023

- **Wine Cultivars Class Classifier Model**
- Ran exploratory data analysis (EDA) on the two datasets from Kaggle
- Merged two different datasets and trained Machine Learning model to predict wine cultivars
- Deployed the interactive web app and hosted onto the cloud using Render

June 2022

- **Sales Insights Dashboard in Tableau Desktop**
- Applied Aim's Grid which represents real life business decision making process
- Understand the concept of OLTP, OLAP and data warehouse
- Performed whole ETL process using MySQL and connect the database server in Tableau Desktop
- Improved the revenue analysis dashboard to profit analysis dashboard with stakeholder feedback

March 2022

- **Stock Market Portfolio Dashboard in Tableau Public**
- Performed data cleaning using Pandas before loading to data source Tableau Public
- Provide performance insights of stock portfolio in specified time interval
- Allow user to review and make decision on the current stock portfolio

- June 2020
  - **Security Analysis and Construction of Confidence Bits on a Secured Iris Recognition System • Final Year Project**
  - Enhanced iris recognition system by generating an additional layer of confidence on the CASIA iris dataset
  - Performance evaluation between initial model and enhanced model by performing genuine and impostor comparisons through FAR and FRR

## CAREER EXPERIENCE

- Mar 2022-Present
  - **RnD Data Analyst • Akribis Systems Pte Ltd**
  - Utilizing Python libraries (Numpy and Pandas) for Data Cleaning and Data Manipulation of all test data sets before storing into MySQL local database
  - Implemented Data Mining solution to business problems such as product recommendation to end customers
  - Presented product's insights through Data Visualization using Seaborn/Matplotlib to manager for product improvement
  - Developed data pipeline between Tulip cloud web app and MySQL, allowing two-way interactions
  - GitHub implementation for CI/CD
- June2020 - Feb2022
  - **Software Engineer • Fuji Master Engineering Sdn Bhd**
  - Front-end and Back-end software development with real time Data Cleaning and Data Logging feature in MySQL DBMS
  - Ensured data integrity and resolved data errors before system deployment
  - Ensured and maintained the security of database in the production environment
  - Python OpenCV for in house Vision System development
- Oct 2018 - Jan 2019
  - **Assistant Production Manager • Internship at Injection Molding and Precision company**
  - Data collection from machines to analyze the performance of products
  - Performance evaluation through Process Capability Index (Cpk) methodology
  - Fatigue test of products through Gage Repeatability and Reproducibility (R&R)

## EDUCATION& CERTIFICATES

- June 2016-June 2020
  - ***Bachelor of Engineering (Honours) Mechatronics Engineering, Universiti Tunku Abdul Rahman, Malaysia***
  - CGPA: 3.4665
  - Relevant Coursework: Fuzzy Logic in Artificial Intelligence, Image processing and objects detection
- Oct 2019
  - UTAR Academic President's List
- Oct 2017, May 2018, Jan 2019
  - UTAR Academic Dean's List

## CO-CURRICULAR ACTIVITIES

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June 2017

### **ICE SC Leadership and Team Building Camp**

- Improve my communication skills with new friends as well as boosting my self-esteem
- Learn to work with peoples from different universities, thus building teamwork

## ADDITIONAL INFORMATION

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- Fluent in English, Mandarin, Malay and German (A1 Level)
- Passionate in self-improvement in various aspects, e.g., participating in Coursera and Udemy courses.