



# YAP WEI HAU

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## SKILLS & ABILITIES

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

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

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

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

## NOTABLE PROJECTS

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| May 2023   | <ul style="list-style-type: none"><li>• <b>Multi-horizon Time Series Sales Forecasting With Deep Learning • Personal Project</b></li><li>• Built a Temporal Fusion Transformer (TFT), a Transformer-based model</li><li>• Data cleaning and data preparation from scratch based on PyTorch TimeSeriesDataSet format</li><li>• Demonstrated the interpretability of the attention-based DNN model through data visualization</li></ul>                              |
| April 2023 | <ul style="list-style-type: none"><li>• <b>Movie Recommender With Ranking System • Personal Project</b></li><li>• Built a Collaborative Filtering based recommendation system</li><li>• Integrated ranking algorithm in terms of similarity score to further enhance the system</li><li>• Tweaking the parameters in the ranking algorithm to optimize the performance</li><li>• Deployed the interactive web app and hosted onto the cloud using Render</li></ul> |
| Jan 2023   | <ul style="list-style-type: none"><li>• <b>Wine Cultivars Class Classifier Model • Personal Project</b></li><li>• Ran exploratory data analysis (EDA) on the two datasets from Kaggle</li><li>• Merged two different datasets and trained Machine Learning model to predict wine cultivars</li><li>• Deployed the interactive web app and hosted onto the cloud using Render</li></ul>   |
| Oct 2022   | <ul style="list-style-type: none"><li>• <b>Optical Character Recognition using Neural Networks • Personal Project</b></li><li>• Integrated neural networks architecture and trained a model that can recognize handwritten digit MNIST database</li><li>• Reuse the trained model (Transfer Learning) for another new model to handle real time handwritten digit recognition</li></ul>  |
| June 2020  | <ul style="list-style-type: none"><li>• <b>Security Analysis and Construction of Confidence Bits on a Secured Iris Recognition System • Final Year Project</b></li><li>• Enhanced iris recognition system by generating an additional layer of confidence on the CASIA iris dataset</li><li>• Performance evaluation between initial model and enhanced model by performing genuine and impostor comparisons through FAR and FRR</li></ul>                         |

## CAREER EXPERIENCE

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|---------------------|---|
| Mar 2022-Present    | <ul style="list-style-type: none"><li>• <b>RnD Data Analyst • Akribis Systems Pte Ltd</b></li><li>• Utilizing Python libraries (Numpy and Pandas) for Data Cleaning and Data Manipulation of all test data sets before storing into MySQL local database</li><li>• Implemented Data Mining solution to business problems such as product recommendation to end customers</li><li>• Presented product's insights through Data Visualization using Seaborn/Matplotlib to manager for product improvement</li><li>• Developed data pipeline between Tulip cloud web app and MySQL, allowing two way interactions</li><li>• GitHub implementation for CI/CD</li></ul> |
| June2020 - Feb2022  | <ul style="list-style-type: none"><li>• <b>LabVIEW Programmer • Fuji Master Engineering Sdn. Bhd</b></li><li>• NI LabVIEW software coding development with real time data logging feature for Functional Testers/Automated testing</li><li>• Data cleaning for test data sets before store in MySQL local database via TCP/IP</li><li>• Python OpenCV for in house Vision System development</li><li>• Vision Builder for Automated Inspection (VBAI) from National Instruments</li></ul>   |
| Oct 2018 - Jan 2019 | <ul style="list-style-type: none"><li>• <b>Internship at Injection Molding and Precisioning company</b></li><li>• Data collection from machines to analyze the performance of products</li><li>• Performance evaluation through Process Capability Index (Cpk) methodology</li><li>• Fatigue test of products through Gage Repeatability and Reproducibility (R&amp;R)</li></ul>  |

## EDUCATION& CERTIFICATES

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|------------------------------|---|
| June 2016-June 2020          | <p><b><i>Bachelor of Engineering (Honours) Mechatronics Engineering, Universiti Tunku Abdul Rahman, Malaysia</i></b></p> <p>CGPA: 3.4665</p> <p>Relevant Coursework: Fuzzy Logic in Artificial Intelligence, Image processing and objects detection</p> |
| 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 | <p><b>ICE SC Leadership and Team Building Camp</b></p> <ul style="list-style-type: none"><li>• Improve my communication skills with new friends as well as boosting my self-esteem</li><li>• Learn to work with peoples from different universities, thus building teamwork</li></ul> |
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## 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.