

Kai Qin TAN

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I am an Actuarial Science graduate currently working as a **Data Scientist**, alongside analytics to deliver business insights. Passionate about **fintech**, I aim to transition into **Artificial Intelligence** related job, focusing on backend development and stakeholder-driven analyses. With expertise in **business analytics**, **statistical modelling**, and **machine learning**, I thrive in technical-driven and agile environment. Eager to learn and grow, I am ready to apply my **business acumen** and **analytical mindset** to create value and make an impact. I am actively looking for the right opportunity to prove my potential and contribute to the fast-paced industry.

EDUCATION

Bachelor of Science in Actuarial Science with Distinction | Universiti Tunku Abdul Rahman (UTAR)

October 2020 - October 2023

- **CGPA:** 3.97/4.00
- **Awards:** MDT Innovations Best Graduate, Jobstreet Best Graduate (LKCFES), Little Rain Trust Best Graduate 2024, 11 times President List

EXPERIENCE

Data Scientist | Sun Life Malaysia Assurance | Kuala Lumpur, MY

January 2024 – Present

- Spearheaded the integration of **Anaconda Python**, slashing about **RM300k in SAS license fees** annually.
- Engineered a **Python-based OCR system** to extract and analyse data, unlocking **RM800k/month in new business opportunities**.
- Constructed a **Machine Learning model** to predict the likelihood that a client will miss the next payment for campaigning purposes using **Scikit-Learn**, achieving 80% accuracy.
- **Revamped the SAS e-miner Cross-sell client take up model** into Python with **Scikit-Learn** and **documented** the model to fit compliance purposes.
- Achieved a **90% accuracy** rate in **forecasting sales value** using advanced statistical modeling techniques in SAS, driving better business decisions and revenue predictions.
- Performed **claim ratio analysis** to counter reinsurance price hikes, identifying high-risk client groups and developing strategies projected to **reduce the loss ratio by over 10%**.
- Worked alongside vendor in a POC project on **Amazon Business Q** and **Amazon Bedrock** to demonstrate Gen AI functionality using company knowledgebase.
- Obtained certification on **AWS Technical Essentials** and currently, a student in the **AWS Re/start** program.

Intern, Strategic Analytics | Sun Life Malaysia Assurance | Kuala Lumpur, MY

October 2022 – January 2023

- Developed the Campaign Management module for an internal-use drag-and-drop platform using Flask framework and SQLite server.
 - Led the backend team in A/B testing software logic using the tree-node concept.
 - Constructed a regression duration predictor model for the data extraction process with 90 percent accuracy.
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PROJECT

Formula One race winner prediction

- Personal project to discover and explore my potential alongside my interest.
- Predicting drivers in different categories, such as podiums, points, and the rest with 90 percent accuracies.
- Wrote my own algorithm to evaluate a driver's confidence or score for each racetrack based on their historical performances alongside each driver's personal attributes.
- Wrote a **React-Flask application** to deploy the model (**PaaS**) and display the race calendar and driver details using API.
- Currently working on a higher-level algorithm to accurately predict the exact position of each race and engineering the CI/CD pipeline for the application.

Machine Learning for Email Filtering and Categorising, Final Year Project

- Gold Prize Winner for the FYP poster competition.
- Investigated the feasibility of various Deep Learning methods on text classification as a proof-of-concept, including LSTM, BERT, RoBERTa, and CNN with overall accuracies over 92 percent.
- Demonstrated the utilisation of a pre-trained and state-of-the-art abstractive summarisation model, PEGASUS and T5 with 48% ROUGE-1 score.
- Developed a platform showcasing related NLP models using the Flask framework with Jinja templating.

SKILLS

- Python
- Machine Learning
- Natural Language Processing
- SQL (T-SQL)
- SAS
- R
- Flask framework
- Linux RHEL server

MATHS

- A/B testing
- General Mathematics
- Statistical Analysis
- Regression Analysis
- Time Series Analysis

LANGUAGES

- English (Full Working Proficiency)
- Malay (Working Proficiency)
- Mandarin (Native)
- Japanese (N4)

EXTRA WORK

- Served in leadership roles and Group committee member at 10th KL Air Scout Group.
- Represented the AS course and gave a talk to the existing foundation students on the course and its structure.
- Microsoft Data Science certificate program graduate (credentials available in LinkedIn).
- Participating in AWS program, with plans to be certified as AWS Data Scientist and AI engineer.

REFERENCES

Dr. Wong Voon Hee, Assistant Professor, UTAR

HoD, Department of Mathematical and Actuarial Sciences
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