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SUMMARY

Fresh Graduate: Data analysis experience showcased through side projects and competition, specialising in data modelling, ETL processes using Python, and leveraging business intelligence tools like Power BI and Tableau. Proficient in SQL and Python, with completed personal projects in dashboard creation using Power BI, Tableau, and Excel, as well as developing machine learning applications for predictive, regression, statistical, and classification analysis.

EDUCATION

Nanyang Technological University *Aug 2021 – Jun 2024*

- **Bachelor of Engineering, Honours (Electrical and Electronic Engineering)**
- **Specialisation: Info-Communication Engineering (Data Intelligence & Processing, Computer Engineering)**
- Relevant Modules: (1) Database Systems (2) Artificial Intelligence & Data Mining (3) Pattern Recognition & Deep Learning (4) Machine Learning Design & Application (5) Introduction to Data Science & AI

PROFESSIONAL CERTIFICATES

- Google Advanced Data Analytics Specialisation
- Google Data Analytics Specialisation
- Google Business Intelligence Specialisation

KEY SKILLS

- SQL (MySQL)
- Python
- Machine Learning
- Power BI
- Tableau
- Excel

RELEVANT EXPERIENCE

Google-NTU Tech4Tomorrow Hackathon *Mar 2024*

Research on the social impact of economic uncertainty by developing a resume-job matching platform targeting retrenched middle-aged professionals.

- Led a team of 5 members from the entire project lifecycle, including web scraping, data cleaning, job-matching algorithm, and prompt engineering to develop a one-stop career portal web app.
- Deployed a machine learning-based job-recommendation algorithm on **Google Cloud** to facilitate real-time data processing and job matching.
- Leveraged tools such as **Vertex AI — Large Language Model, Prompt Engineering, Natural Language Processing and Classification** to develop a use case, resulting in a successful implementation.

Significant Highlights

- Our team entered the **finalist** round and emerged as the **second runner-up**.

Final Year Project, Enhancing portfolio's performance with S-REIT Analysis *Jul 2023*

The aim is to maximise the portfolio's returns, consisting of Singapore REIT stocks by generating a strategy that potentially outperformed the general index market with various analyses.

- Explored Qualitative and Quantitative approaches, including Fundamental, Technical, and News Analysis.
- Employed **Python** for portfolio optimisation, leveraging libraries such as **Pandas, NumPy, and Matplotlib**.
- Applied Pinescript to generate trading strategies, and Google Excel for DCF dashboard creation.

Significant Highlights

- Achieved an **A- grade** for a comprehensive market analysis by leveraging a combination of financial skills and programming knowledge.

Introduction to Data Science & AI, Cardiovascular Disease Prediction *Jan 2023*

The project aims to utilise **Python** and use significantly correlated variables such as blood pressure, cholesterol levels, age, fitness, etc, to predict the probability of developing cardiovascular disease.

- Led the data cleaning, preprocessing, feature engineering and visualisation of the dataset from Kaggle.
- Assisted with supervised machine learning tools such as Linear Regression, Logistic Regression, Gaussian Naïve Bayes, and Decision Tree.

INTERNSHIP EXPERIENCE

Binance Accelerator Program, Data Analyst *Nov 2024 – May 2025 (On-going)*

Binance

- Analysing large volumes (Petabyte) of transactional data such as transactional, operational and customer data, capturing useful insights for business decisions.
- **Applied SQL, Tableau, Python**

Software Engineer (Robotics) *Jun 2022 – Dec 2022*

ST Engineering Land System Ltd

Implemented ROS Stack with C++ and Python to develop a real-life self-navigating drone.

- Utilised Excel and ROS to analyse data provided by UWB, optimising for improved localisation accuracy.
- Implemented sensors for navigation/localisation (e.g., IMU, UWB, GNSS receivers, RTK/GPS, Lidar, 3D Camera) to enhance precision and accuracy in location tracking.
- Applied C++ with Qt application and Python on Linux OS (Ubuntu), enhancing software functionality and user experience.

Significant Highlights

- Awarded the "**Best Intern"** for exceptional performance—enhanced project efficiency by **15%** for optimising robotics software and reducing hardware components through efficient electrical design, allowing the project to be completed ahead of schedule.

ACADEMIC PROJECTS

1. Web Application Design, Web-Development

Created an e-commerce platform focused on fruit products. Implemented user authentication, validation, product catalogue, shopping cart, checkouts, and admin panel features. Successfully concluded the entire backend development process, incorporating MySQL for database creation and utilising PHP to facilitate communication between the backend scripts and the database.

- Applied HTML/CSS, PHP, JavaScript, **MySQL**

2. Design & Innovation Project, Stock Trading with Machine Learning

The project aims to utilise FinRL Library, which does passive trading with Machine Learning, testing different methods and **Deep-Reinforcement Learning** algorithms to find the best annual/cumulative returns performance—tested data such as the US Stock market.

- **Applied Python**

3. Machine Learning Design & Application, Hawker Food Image Prediction

Employed transfer learning with **CNN**; ResNet and MobileNet to develop precise image prediction models specialised for Singaporean Hawker food, achieving a notable 85% accuracy.

- Implemented techniques including fine-tuning, data augmentation, grid-search for optimal hyperparameters, and selection of optimisation algorithms to optimise model performance.
- **Applied Python**

SKILLS

- **Languages:** Fluent in English and Chinese (Mandarin)
- **Software Programming:** Python, R, MySQL, C, C++, HTML/CSS, PHP, JS
- **Libraries:** Pandas, PyTorch, NumPy, Scikit-learn, Matplotlib
- **Visualisation Tools:** Power BI, Tableau
- **Development Tools:** Jupyter Notebook, VSCode, Anaconda, CodeBlock, Arduino IDE, LabVIEW
- **Software Application:** Microsoft Excel, Words, Office, AutoCAD, Adobe Premiere Pro, Adobe Lightroom
- **OS:** Windows, Linux