NELSON NGAI

⌂ Bristol · ▯ 07512863922

✈ jobs25@nsc.simplelogin.com · ⦿ Github

PROFILE

Python Data Analyst at Huboo Technologies, with a strong background in physics, data science, analysis, and web development. Experienced in delivering actionable insights through data, automating processes, and building user-friendly applications to drive efficiency and revenue growth.

WORK EXPERIENCE

Huboo Technologies Ltd.   2023 - now
Python Data Analyst

- Developed a multi-functional frontend using Vue.js and Python for warehouse stock replenishment, an NFC clock-in system, and workforce management, enhancing operational efficiency.
- Contributed to a no-code report generation application. It allows custom report creation and email automation for non-technical users with automated billing in place. Thousands of reports are sent monthly via the application.
- Reduced courier cost by 20% per annum analysing new courier tender rates. Calculation is automated with Python and is reusable for different courier tenders and countries.
- Generated revenue by providing personalisation solutions for clients, such as allowing gift messages from their customers.
- Created bespoke reports, PowerBI dashboards, and ad-hoc analyses for all stakeholders across the organisation and clients.
- Product categorisation using Langchain and OpenAI.
- Participated in a GCP hackathon to extract invoice data from PDFs with Gemini and Big Query.

Kindred Group plc.   2023
Data Science Intern

- Explored machine-learning based recommendation systems for implicit feedback through negative sampling techniques.
- Implemented logistic regression and LightGBM, sentence embedding and conducted residual analysis on the model performance.

The Hong Kong Space Museum   2022
Programme Assistant

- Developed an application in Python to automate all-sky cameras and sky quality meters located in multiple county parks across Hong Kong. ⬈.
- Collaborated in the design of materials for outreach programs, which included creating presentation slides, worksheets, and DIY teaching kits. These resources aimed to facilitate the understanding of various physical phenomena and engineering concepts, such as electromagnetism and elementary rocket science.
- Led and coached volunteers at museum and outreach events, organising logistics and demonstrating the use of equipment such as telescopes and cameras.

SKILLS

Python

- Web Development: FastAPI, Streamlit
- Data Analysis and Visulisation: Matplotlib, Pandas, Numpy, Ploty, Seaborn, Statmodels, Scipy
- Machine Learning: Scikit-learn, PyTorch
- Testing: PyTest, Unittest
- Others: Requests, SQLAchemy, Alembic, Pydantic, APScheduler

Frontend: Vue.js, Javascript, HTML5, CSS, Node.js
Scientific Research: MATLAB, Mathematica
Other Tools: Git, Docker, AWS, LaTeX, Microsoft Office, Neovim

ACADEMIC EXPERIENCE

University College London   2022 - 2023
Individual and collaborative projects across selective modules

- *Applied Deep Learning | Pytorch, Google Colab:* Collaborated with an 8-member team on a project focused on semantic image segmentation. The project involved contrasting the performance of conventional supervised learning algorithms with the Mean-Teacher semi-supervised algorithm.
- *Statistical Natural Language Processing | Python, Huggingface* ⊙*:* Led and delegated tasks within a 4-member team to develop a code generation application, focusing on fine-tuning large language models, including GPT-2, T-5, and Marian-MT.
- *Algorithmic Trading | Python, scikit-learn:* Applied time series analysis, ARMA modeling, and conducted Gaussianity and stationarity tests on historical stock indices. Explored various trending strategies for leverage trading.
- *Applied Machine Learning | Python, Pytorch, scikit-learn* ⊙*:* Implemented popular algorithms including Random Forest, AdaBoost, and Support Vector Machine from scratch, thereby gaining a deep understanding of their underlying mechanisms and operations.
- *Introduction to Statistical Data Science | Python, statsmodels:* Collaborated with a team of six students to perform statistical analysis on the UCI dataset, focusing particularly on hypothesis testing for goodness-of-fit and two-sample tests.

Imperial College London   2019 - 2020
Thesis: An Introduction to Quantum Cosmology and Solutions to the Wheeler-DeWitt Equation. Supervisor: João Magueijo

- Read Quantum Mechanics, Quantum Field Theory, General Relativity, Cosmology and the Standard Model of Particle Physics.

EDUCATION

University College London	London, England
MSc Data Science and Machine Learning, Distinction	2022 - 2023
Imperial College London	London, England
MSc Physics, Distinction	2019 - 2020
Cardiff University	Cardiff, Wales
BSc Physics with Astronomy, First Class Honours	2016 - 2019

OTHERS

Certification

- Udemy -Data Structures Algorithms   2022

Hobbies

- Workout and Calisthenics. I keep track of my progress with a Streamlit application. ↗
- Music and playing the piano.