Ho Do Minh Quan

Clayton, Melbourne | 0478-524-519 | hodominhquan.self@gmail.com | https://nauqh.dev/ | linkedin.com/in/nauqh/

PERSONAL PROJECTS

Music Recommendation System - musicotherapy.vercel.app   **Libraries**: React, Fastapi, Langchain
- Extract audio features and metadata from Spotify playlist using Spotify API
  - Utilised Spotify API documentation for accurate and efficient data retrieval.
  - Optimise data extraction and manipulation skills to generate a base features dataset for recommendation training.
- Perform data analysis of user playlist
  - Conducted data analysis of user playlists and generated insightful visualisations to identify key patterns and trends.
  - Build system for suggesting songs based on playlist characteristics using content-based filtering; enhance recommendation quality by implementing collaborative filtering using matrix factorization on a wide range of users.
- Utilise large language model for music characteristics analysis
  - Conducted fine-tuning of the GPT-4 model for in-depth analysis of music characteristics, employing advanced prompt engineering techniques to optimise performance and precision
  - Designed and hosted web application to deploy recommendation model; Application has been viewed by more than 100 distinct users.

Discord Music Bot - https://github.com/nauqh/Ashema   **Frameworks**: Hikari, Lavalink
- Developed a highly scalable and customizable music streaming bot for personal Discord servers
  - Integrated Lavalink framework, a high-quality music player that supports a variety of audio formats and music sources, including YouTube, SoundCloud and Spotify.
  - Designed and implemented features such as custom playlists, shuffle songs, and autoplay related tracks using Youtube API; The bot has been actively used in 10 diverse Discord channels.
- Improved user interaction by creating a more engaging and responsive experience.
  - Implemented interactive commands and responses, allowing users to control the bot intuitively through Discord chat, enhancing user engagement and experience.

TECHNICAL EXPERIENCE

CoderSchool – Analytics Engineer / Teaching Associate; Ho Chi Minh, Viet Nam   *November 2023 – Present*
- Provide comprehensive knowledge across multiple domains in data science and computer science, guiding learners towards a deeper understanding of the field and helping them choose the right career path. Successfully supported 20 learners to graduate with high results and receive immediate job offers.
- Designed and implemented data-driven solutions to enhance educational experiences. This involved:
  - Developing and maintaining a new exam platform for data science courses that improves content management, usability, and integrates an advanced auto-grading system for efficient assessments.This system automatically grades exams and generates reports, reducing TA workload by 80%.
  - Building an automated job board that curates personalized opportunities on a weekly basis for learners from different courses through Discord. This job board gathers 30 job postings per week for 3 Discord servers.
  - Developing an AI assistant to enhance learner support by answering questions on forum posts and facilitating engagement in Coderschool's question center.

Google Developer Student Club – Operations Officer; Ho Chi Minh, Viet Nam - Melbourne, AU   *June 2020 – Present*
- Organized technical events and workshops on Google technology for club members and the local community.
- Collaboration with cross-functional teams to deliver highly engaging and informative events.
- Utilized extensive networking skills and industry connections to invite relevant guest speakers, resulting in increased attendance and engagement throughout.

EDUCATION

Monash University | Master of Data Science; Melbourne, Australia   *July 2024 - Present*
Specialisation: Applied Data Analysis | GPA: High Distinction
Monash University | Bachelor of Computer Science; Melbourne, Australia   *March 2021 - June 2024*
Specialisation: Data Science & Software Development | GPA: High Distinction

SKILLS & INTERESTS

Languages: Python, Typescript, SQL, R, HTML/CSS
Data Technologies: Pandas, Numpy, Plotly, Scikit-learn, Langchain, Pytorch, Tableau, Dagster
Software Frameworks and Tools: React, Nextjs, Tailwind, Chakra, FastAPI, Git, Docker, AWS