HO DO MINH QUAN

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PROJECTS

DISCORD AI TEACHING ASSISTANT | OpenAI, ChromaDB, Discord.py   Link
- Developed an AI-powered teaching assistant integrating OpenAI GPT models with Discord's interactive features for intelligent, context-aware responses across 3 major courses with 100% positive feedback.
- Built an advanced code and visual analysis engine with GitHub integration to automatically extract, analyze, and provide feedback on code submissions in multiple programming languages, including image debugging for visualization errors.
- Implemented a knowledge retrieval system with vector database integration delivering curated learning materials through real-time searches of YouTube content and local documents. Successfully resolves 90% of forum threads monthly, significantly reducing teaching staff workload.

ONLINE ASSESSMENT PLATFORM | Next.js, ShadcnUI, FastAPI, PostgreSQL, AWS S3   Link
- Designed and developed a comprehensive online examination platform for CoderSchool courses, supporting multiple-choice assessments and coding problems with live code execution capabilities, serving 200+ students across multiple cohorts.
- Built a scalable architecture with Next.js frontend, FastAPI backend, and AWS S3 integration for exam content management, featuring automated S3 synchronization via GitHub Actions for seamless content deployment and version control.
- Implemented an advanced autograding system with real-time code execution and validation using Python/SQL sandboxing, reducing TA marking workload by 80% while providing immediate feedback through WebSocket notifications and comprehensive analytics dashboard.

JOB BOARD AUTOMATION | Langchain, BeautifulSoup, Pydantic, GithubActions   Link
- Developed an automated job scraping and intelligent filtering platform that extracts job listings from LinkedIn, TopCV, and ITviec, using AI models to evaluate job relevance and assign suitability scores based on candidate profiles.
- Engineered a multi-platform scraping engine with robust error handling and rate limiting, extracting comprehensive job details while maintaining compliance with platform policies and ensuring data accuracy.
- Integrated cron job scheduling with automated pipeline orchestration, successfully gathering 100+ targeted job postings per week across five Discord servers with 95% accuracy in relevance scoring and 40% higher application rates among graduates.

EXPERIENCE

CODERSCHOOL   Ho Chi Minh, Vietnam
Automation Engineer   Nov 2023 – Present
- Designed and implemented data-driven automation solutions to enhance educational experiences and TA productivity, developing three major systems: an advanced exam platform with autograding capabilities, an automated job board system, and an AI teaching assistant, collectively reducing staff workload by 80% and improving learner engagement.
- Create and maintain automation workflows for learner management and data pipeline for delivering key metrics to stakeholders, reducing manual reporting time by 90% and managing 500+ students across 5 cohorts with 99.8% accuracy.

Teaching Associate   Nov 2023 – Present
- Provide comprehensive knowledge across multiple domains in data science and computer science, guiding learners towards deeper understanding of the field and career path selection. Successfully supported 20+ learners to graduate with high results and secure immediate job offers, including mentoring 5 students who received CS50P certificates.
- Manage content development and curriculum oversight for Data Science and Data Analysis Express courses, ensuring course materials remain current with industry standards and learning objectives align with career readiness requirements.

GOOGLE DEVELOPER STUDENT CLUB   Ho Chi Minh, Vietnam - Melbourne, Australia
Operations Officer   Oct 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   Melbourne, Australia
Master of Data Science   Jul 2024 – Jun 2026
Specialisation in Applied Data Analysis | GPA: Distinction
Relevant Coursework: Advanced Data Analysis, Data Wrangling, Data Processing for Big Data

Bachelor of Computer Science   Mar 2021 – Jun 2024
Specialisation in Data Science and Software Developement| GPA: Distinction
Relevant Coursework: Advanced Data Analysis, Data Wrangling, Data Processing for Big Data

SKILLS

Languages: Python, TypeScript, SQL, R, HTML/CSS
Data Science & Engineering: Pandas, NumPy, Scikit-learn, PyTorch, Langchain, PySpark, Airflow
Software Development: React, Next.js, FastAPI, Django, Tailwind CSS, Shadcn UI
Databases & Cloud: PostgreSQL, MongoDB, AWS (S3, EC2, Lambda), Docker, Git