HKUST Sophomore in Industrial Engineering and Decision Analytics + Extended major AI Personal Website: dav5157.github.io

EXPERIENCE

SIGHT AT HKUST STUDENT, SIGHT LEADER

2024/1/29 - NOW

Semester-long project consulting and deploying improvements for a Sri Lankan upcycling enterprise with bincoin concept, identified pain points. Improved their ERP workflow efficiency through digital transformation with Airtable database system, designed specific behavioral metrics (responsible consumer index) and loyalty points IBP, to allow better analysis and making data informed business decisions.

SIGHT leader, guide future students in the course, improve course teaching.

Undergraduate Researcher on Embodied Al Robotic Arm and Vision-based Foundation models for robot manipulation 2024/12-NOW

Work closely with a Phd student under the supervision of Prof. Qiming Shao. Deploying and testing cutting-edge World Foundation models on object detection, segmentation, pose estimation algorithms on a robotic arm and conduct simulations and synthetic data generation for task-reward based reinforcement learning.

The Institution of Engineering and Technology (IET) Student Section organizing committee member

2024/1/29 - NOW

A part of a team organizing and promoting sight visits and Engineering mentorship program. Acted as MC for the Youth mentoring programme 2024 hosted by the IETSS.

CATHAY HACKATHON 2024 SEMI-FINAL

2024/9 - 2024/11

Product master role in a 4 man team, involved creating a simple OCR system and designing a data pipline and physical container with CAD for more efficient and digitalized warehouse operations. Pitching in Cathay City

PART-TIME STARBUCKS BARISTA, MARKETPLACE TRAINEE

2023/7/26 - 2023/10/1

Two months part-time in Elements Starbucks Kowloon station and One-month in Marketplace store trainee. Operational and organizational understanding, working effectively and efficiently.

Internship at Baguio Green Tech Limited 2024/6/18 - 2024/8/31

Data Engineering internship in developing data piplines.

- Google form report system on IOT devices maintenance with PowerBI querying and visualization with Excel, google app script, PowerBI M language.
- Flask Web app for Raw data parsing on IOT devices creating pivot tables and matplotlib visualizations
- Node|S Whatsapp web api implementation for scheduling and reporting cases, including real time chat logging and analysis with pivot table.
- Al Trash classification to recognize fraud in recycling from real time camera images by segmentation and detection with YOLO, UNet, Pytorch

HKUST ECE MAKERSPACE SOCIETY FOUNDING CORE MEMBER DIRECTOR OF INTERNAL DEVELOPMENT

2024-NOW

One of four people to initiating ECE Makerspace as a society under the Electrical and Computer Engineering dept. Working on administration, engineering maintenance, digital operations, marketing and recruitment. Facilitating resources and members to use for project innovation.

Internship at Laboratory for Space Research (LSR)

Laboratory for Space Research University of Hong Kong (LSR) 2021/07/26 - 2021/08/06

Two-week internship at LSR HKU Cyberport. Worked on a small research project on the size distribution of bipolar and round "Planetary Nebulae" from the HASH PN database.

MATHEMATICS EXTENDED ESSAY, EVALUATING THE USE OF SMALL-ANGLE APPROXIMATIONS THROUGH THE APPLICATIONS OF THE TAUTOCHRONE PROBLEM

2022 - 2023

4000 word academic research project. Obtained an A

ASTRONOMY CLUB COMMITTEE, CHAIRPERSON

Po Leung Kuk Ngan Po Ling College 2020-2022

Set up the astronomy club for two consecutive years, recruited committee members and under intense environment and workload, as well as collaborating and communicating club members. Planned and promoted star gazing activities and day-time solar observation

EDUCATION

BACHELORS IN ENGINEERING+EXTENDED MAJOR AI

The Hong Kong University of Science and Technology 2023-now

- Industrial Engineering and Decision Analytics + AI
- Engineering E2i Peer Mentor

ADDITIONAL SKILLS

- Native in English, Mandarin, and Cantonese
- Writing and typing in English and Chinese
- Willing and Quick to learn
- Individual/group project management skills, Loop, Discord, Teams

INTERNATIONAL BACCALAUREATE (IB DIPLOMA)

Po Leung Kuk Ngan Po Ling College (2017-2023)

2021-2023

- Math AA, Physics, Economics Higher Level
- Chemistry, English A, Chinese A Standard Level
- A in Math Research-based Extended Essay
- Figma, Fusion 360, Canva Adobe Photoshop, Lightroom, INDESIGN
- Adept use of Google and Microsoft productivity applications
- Understanding of Technology infrastructure and capabilities
- Team player, collaborator, communicator, leader
- Familiar with server and computer systems both local and cloud such as enterprise High performance computing job scheduling and GPU request