

Keet Men, Lee

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Education

Gamuda AI Academy – Trainee	May - July 2025
Fullstack Web Development + AI	
The University of Nottingham Malaysia – BEng Civil Engineering	July 2025
Subjects: Structural Analysis, Geotechnics, Hydraulics, Engineering Management, BIM	
The University of Nottingham Malaysia – Foundation in Engineering	July 2021
Subjects: Computer Methods for Engineers, Light, Waves and Electrons, Probability and Statistics, Principles of Chemistry, Calculus, Electricity and Magnetism, Mechanics and Matter, Mathematics for Engineers	
The Alice Smith School – IGCSE	July 2020
Subjects: English Language, English Literature, Biology, Physics, Chemistry, Mathematics, Additional Mathematics, Business Studies, Computer Science, Bahasa Melayu, Mandarin Chinese	

Skills

BIM & 3D Visualization: Autodesk Revit, Civil3D, Navisworks, Robot and Lumion

CAD: Fusion360, OnShape, AutoCAD

Front End: Vuejs/Vuetify

Back End: MongoDB, FastAPI, Firebase

AI: Google Cloud Platform (VertexAI, Gemini)

Data Analytics / Data Science: Python, MatLab, SQL, Excel

Data Visualization: PowerBI, Tableau

Project Management: Microsoft Project

Project Experience

BEng Year 1 Coursework - Bridge Design

- **Designed and analyzed a motorway bridge** spanning 100m, adhering to precise engineering specifications, including load calculations and deflection limits.
- **Collaborated in a consultant-style team** to evaluate multiple structural designs, selecting the optimal solution based on efficiency, economic viability, and structural integrity.
- **Constructed and tested a scale model bridge**, successfully validating theoretical calculations with practical performance criteria such as load efficiency, deflection limits, and quality of construction.

BEng Year 2 Coursework - Multi-Storey Hall of Residence for Students

- **Designed a Sustainable Multi-Storey Hall of Residence:** Collaborated on a 5-storey steel-framed student residence for the University of Nottingham Malaysia, featuring 250 en-suite rooms, a dining hall, and modern amenities.
- **Integrated Advanced Tools and Sustainability:** Utilized AutoCAD and Revit to create an E-shaped design optimizing natural light and ventilation, with features like rainwater harvesting for environmental efficiency.
- **Overcame Complex Site Constraints:** Addressed steep slopes, drainage challenges, and environmental concerns through innovative engineering solutions while adhering to strict safety and sustainability standards.

BEng Year 3 Coursework - Art Gallery BIM Project

- Developed detailed Building Information Modelling (BIM) solutions for a new art gallery, coordinating structural designs with architectural and external site constraints **using Revit, Civil3D, Robot and Navisworks**.
- **Collaborated within a multidisciplinary BIM project team** to produce and manage digital models, perform spatial coordination, and mitigate potential site issues through comprehensive clash detection processes.
- **Prepared and contributed to BIM Execution Plans (BEPs)**, clearly defining responsibilities, ensuring interoperability across software platforms, and managing information exchange aligned with international BIM standards (ISO 19650).

Generative AI/Image Detection Website

- **Engineered and launched** a full-stack AI interior design application, by developing over **20 RESTful API endpoints** with Python/FastAPI and a **dynamic Vue.js/Vuetify frontend**.
- Developed the **core generative AI engine**, trained on a dataset of over **500 furniture models**, capable of producing unique and realistic room layouts **in under 10 seconds**.
- Designed and implemented a modular backend architecture using **FastAPI**, leveraging **Pydantic** for **rigorous data validation** and **SQLAlchemy** for **database interaction**, ensuring **robust data integrity** across all API endpoints.

Extra-Curricular Experience

President, Project Management Youth Society - University of Nottingham Malaysia Sept 2023 - May 2024

- **Led a committee of 5 people** to meet recruitment and event targets set by our society advisor
- Responsible for **directly liaising between University Faculty and PMIMY** (Project Management Institute Malaysia Chapter)
- **Co-ordinated on-campus events** involving PMIMY representatives

Course Representative, Civil Engineering 3rd Year - University of Nottingham Malaysia Sept 2024 - May 2025

- Represented coursemates and **acted as a liaison** between students, university departments, and the Student Association to **ensure effective communication**.
- Ensured that **student feedback and issues were discussed with staff members**, providing timely updates to coursemates.
- Maintained regular communication with fellow representatives to **stay informed about school developments and share updates with students**.

Personal Projects

3D Printing

- **Designed and fabricated custom solutions** for everyday problems using CAD software
- Improved design iteration and problem-solving skills **through rapid prototyping**
- **Experimented with various materials and print settings**, optimizing print quality and durability for different project requirements.

Data Analytics Portfolio Project

- **Cleaned and processed datasets** using NumPy and Pandas to improve data quality and consistency.
- **Engineered features and conducted EDA** using both python and sql to uncover patterns and insights.
- **Applied data visualization techniques** to present findings effectively using Matplotlib, Seaborn and PowerBI.

Certification

Google Data Analytics Professional Certificate	2023
CIDB Green Card	2022

Additional Information

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- Interests: Aerospace and Defense, Geopolitics, Manufacturing & Industry, Artificial Intelligence and Consumer Electronics.
 - Native English fluency, conversational proficiency in Mandarin Chinese and Bahasa Melayu.