

Jun Wei Ng

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EDUCATION

National University of Singapore (NUS)

Aug 25 – Aug 26

Master of Science, Business Analytics (MsBA)

- NUS Engineering Scholarship

National University of Singapore (NUS)

Aug 22 – May 25

Bachelor of Engineering (Civil Engineering), Honours

- GPA: 4.67 / 5.00 (Highest Distinction)
- Specialisation: Digitalisation of Urban Infrastructure
- Minors: Computer Science, Data Analytics
- Dissertation: *"A Reinforcement Learning Approach to Taxi Rebalancing and Congestion Reduction in AMoD Networks"*
 - Developed a demand-aware vehicle rebalancing algorithm using Actor-Critic networks and Proximal Policy Optimization to reduce congestion
- Dean's List AY23/24 Semester 1 (Top 5% of cohort)
- NUS Engineering Scholarship

WORK EXPERIENCE

Data Scientist Intern, Tictag

Jun 25 – Aug 25

- Designed and implemented accurate, scalable, and production-ready deep learning algorithms for video analytics using RT-DETR and ViTPose
- Contributed to the deployment of scalable analytics for in-store customer behaviour tracking, improving business insights from CCTV data
- Integrated modular ETL pipelines to rapidly fine-tune detection and pose models for client-specific retail video analytics.

Undergraduate Teaching Assistant, NUS Computing

Aug 24 – May 25

- Teaching assistant for CS2040, Data Structures & Algorithms for AY24/25
- Conducted weekly lessons on functional programming in Java for 30 students

Climate Models Analytics Intern, Defence Science and Technology Agency

May 24 – Aug 24

- Developed a Selenium and API-based data pipeline for automated real-time weather data retrieval and processing
- Enhanced rainfall intensity analysis in the Western Maritime Continent using SRGAN and RDN to improve resolution of satellite precipitation images
- Trained and deployed an offline Llama-based LLM to provide detailed, context-specific information for weather and climate research.

SOFTWARE PROJECTS

[FitSensei](#) – NUS Venture Initiation Programme

Ongoing | Python, Kotlin, Computer Vision, OpenCV

- Developed an AI-driven personal trainer app that provides real-time feedback on weightlifting form using computer vision.
- Implemented pose estimation using YOLO-v8 model to detect and correct posture errors.
- Designed MVP for deployment using Kotlin and Android Studio
- Received funding of SGD 10,000 for future development and incubation at Block 71

EcoCart – Life Hack 2025

Jun 2025 | React.JS, Chrome, OpenAI, Python

- Built a chrome extension to give users insights about environmental sustainability of brands and products as they shop online
- Scraped sustainability data using Python and linked to OpenAI API generate concise, user-friendly summaries
- Developed and deployed a full-stack MVP within 24 hours, combining web scraping, API integration, and browser extension architecture

Pocket Missy – Health Hack 2025

Mar 2025 | Python, Azure, React.JS, LLM, RAG

- Developed an AI-driven medical chatbot that analyses medical records and provides personalised medical advice.
- Implemented RAG technology using Intersystems vector database for prompt engineering
- Winner: Intersystems Gen AI challenge 1st Runner Up

Love Bets – Hack&Roll 2025

Jan 2025 | Python, SQLite, React.JS

- Built a dating app that allows users to place bets on potential matches
- Developed and integrated a full-stack MVP within 24 hours.
- Winner: Most Entertaining Hack

CO-CURRICULAR ACTIVITIES

President, NUS Civil Engineering Club

Aug 23 – Aug 24

- Led, organized and managed events for over 400 Civil Engineering students in NUS such as CEE Day.
- Represented NUS in Asian Universities Alliance (AUA) Youth Forum 2024 in Hong Kong and was awarded Best Presenter on adoption of AI and technology to reduce food waste on campus.

Vice-Project Director, Residential College 4

Jan 23 – Aug 23

- Led the planning and execution of a four-day Freshmen Orientation Camp for 400+ participants.
- Managed logistics, team coordination, and event operations to ensure a smooth experience.

AWARDS

- Built Environment Stellar Student Award 2022
- Engineering Innovation Challenge 2023 - Merit Award - The Institution of Engineers, Singapore
- SCI Young Innovators Award 2023 (Merit) - Singapore Concrete Institute
- College of Design & Engineering Innovation & Research Award (High Achievement)
- NUS Outstanding Undergraduate Researcher Prize (Group)
- IAHR-Singapore Hydraulics Medal

ADDITIONAL INFORMATION

- IT skills: Python, Java, R, PostgreSQL, JavaScript, C, HTML, CSS, PTV Vissim, Plaxis2D, ETABS, MATLAB, Fusion360, Rust
- Languages: English (Written and Spoken, Native), Mandarin (Written and Spoken, Mother Tongue)