

JUN WEI NG

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EDUCATION

- National University of Singapore (NUS) Aug 2025 – Aug 2026
Master of Science in Business Analytics (GPA: 4.88/5.00) Singapore
- Recipient of DSO-AISG Incentive Award: Researched on finetuning Qwen2.5-8B-VL using agentic SFT and Focal Loss to develop a tool-augmented reasoning pipeline for biomechanical squat analysis, evaluating cross-domain transferability.
 - NUS Engineering Scholars Programme.
- National University of Singapore (NUS) Aug 2022 – May 2025
B.Eng. in Civil Engineering, Honours (Highest Distinction) (GPA: 4.67/5.00) Singapore
- Minors in Computer Science and Data Analytics; Specialization in Digitalization of Urban Infrastructure.
 - Dissertation: Applied Reinforcement Learning for Taxi Rebalancing to optimize urban traffic congestion.
 - Dean's List AY23/24 Semester 1 (Top 5% of cohort).

EXPERIENCE

- Data Science Intern Jan 2026 – May 2026
GovTech Singapore
- Developed multimodal AI systems integrating fine-tuned detection models and vision-language models (RF-DETR, Gemini 3, Qwen-TTS/STT, Sam3), implementing multimodal RAG pipelines, prompt engineering, and agentic vision to enable reliable cross-modal reasoning.
 - Architected end-to-end cloud infrastructure using Docker, AWS, and GCP; deployed scalable GPU-backed inference services for Whole-of-Government (WOG) web applications and edge AI (DGX Spark).
 - Contributed to GovTech Platform AI, productionizing multimodal AI capabilities for operational deployment.
- Data Scientist Intern Jun 2025 – Aug 2025
TicTag Singapore
- Developed and deployed scalable deep learning models for computer vision, speech, and video analytics, delivering production-ready, customized AI solutions.
 - Built and integrated modular ETL pipelines to fine-tune detection and pose estimation models for client-specific retail analytics, improving model adaptability and deployment efficiency.
- Teaching Assistant (CS2040) Aug 2024 – Dec 2025
NUS School of Computing Singapore
- Instructed Data Structures & Algorithms in Java; placed on Honor Roll of Student Tutors.
- Climate Models Analytics Intern May 2024 – Aug 2024
Defence Science and Technology Agency (DSTA) Singapore
- Enhanced rainfall intensity analysis using Super-Resolution GANs (SRGAN/RDN) for satellite imagery.
 - Developed Selenium and API-based data pipelines for automated real-time weather data retrieval.

SOFTWARE PROJECTS

- RetailMind | AWS (*Lambda, Step Functions, Fargate, Bedrock*), *Next.js, Scikit-learn* Jan 2026 – Present
- Architected a serverless AutoML SaaS using AWS Step Functions and Fargate to orchestrate scalable ML pipelines, reducing infrastructure costs to near-zero during idle periods.
 - Integrated Amazon Bedrock (Claude) to provide a natural language interface for problem framing and automated business insight generation from model metrics.
- FitSensei | *Python, Kotlin, Pose Estimation, ReactJS, Qwen* Ongoing
- Developed an AI personal trainer app providing real-time feedback on weightlifting form via computer vision.
 - Secured SGD 10,000 funding through the NUS Venture Initiation Programme for incubation at Block 71.

TECHNICAL SKILLS & ACHIEVEMENTS

Languages/Tools: Python, Java, R, SQL, JavaScript, React, GCP, AWS, DeepSpeed, LoRA, Docker, MATLAB
Selected Awards: Engineering Innovation Challenge Merit ('23, '25), NUS Outstanding Undergraduate Researcher Prize, CDE Innovation & Research Award, IAHR-Singapore Hydraulics Medal (Top in cohort)
Leadership: President, NUS Civil Engineering Club; Best Presenter, AUA Youth Forum 2024 (Hong Kong)