

Joshua Nee

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EDUCATION

Carnegie Mellon University

Aug 2025 – Dec 2026

Master of Science (M.S.) in Software Engineering

National University of Singapore

Aug 2021 – Jan 2025

Bachelor of Engineering (B.Eng.) in Computer Engineering

GPA: 3.9 / 4.0

TECHNICAL SKILLS

Languages & Frameworks: Python, Golang, Java, TypeScript, C++, React, Next.js, Node.js, Express.js, TensorFlow

Databases & Communications: PostgreSQL, MySQL, MongoDB, Firebase, Redis, WebSocket, MQTT, Apache Kafka

Cloud & DevOps: AWS (EC2, S3, Lambda), Docker, Kubernetes, NGINX, Grafana

Developer Tools & Productivity: Git, CI/CD Pipeline, Copilot, Codex

INDUSTRY EXPERIENCE

Shopee

Jan 2025 – Jul 2025

Backend Software Engineer

Singapore

- Developed e-commerce and payment systems with Kafka/MySQL, overseeing **10K+ daily transactions**
- Spearheaded migration of legacy Golang microservices, **cutting tech debt by 20%** through modular refactor
- Restored notification microservice deployability **for 100+ users within 2 weeks** by redesigning release workflows
- Engineered nationwide features with blacklist/whitelist logic and redirect fixes, supporting 100K+ user interactions
- Commenced role after early graduation; concluded tenure upon Master's program admission

ST Engineering

May 2024 – Aug 2024

Software Engineering Intern

Singapore

- Prototyped Apple Vision Pro applications **within 3 months** of US launch, preceding Singapore release by 2 months.
- Designed 3D interactions and live geo-tracking in Swift by reverse-engineering undocumented VisionOS behaviors.
- Architected reusable mixed reality components, reducing future integration time by 30%

InTune Auto

Dec 2022 – Dec 2023

Full-Stack Software Engineer

New York, NY

- Drove strategic acquisition by Highland Creek Partners through consistent full-stack product delivery
- Collaborated in a 4-engineer startup team using React, Java, and PostgreSQL with end-to-end ownership
- Innovated **custom scheduling platform** to improve enterprise booking efficiency with advanced availability logic
- Reduced data retrieval latency from **minutes to seconds** by redesigning pagination and query architecture
- Gathered and defined client requirements to ship features weekly, maintaining **99% customer retention**

Solutions16

Sep 2022 – Jan 2023

Software Engineering Intern

Singapore

- Constructed firmware architecture enabling rapid microcontroller onboarding, **reducing deployment time by 30%**
- Orchestrated reliability improvements with fallback data buffering to ensure resilience during network disruptions
- Automated fault detection alerts via WhatsApp/Telegram APIs, cutting user response time from 8 hours to minutes

PROJECTS & HACKATHONS

Computer Engineering Capstone Project | *Machine Learning*

Aug 2024 – Nov 2024

- Developed real-time gesture recognition using a multilayer perceptron, achieving **>90% accuracy** on unseen users
- Optimized pipeline with normalization, augmentation, and feature engineering to streamline data preprocessing
- Enhanced gameplay with retry mechanisms for communication failures and concurrency control in multi-player states

ETHGlobal Bangkok & ETHGlobal Singapore Hackathons | *Blockchain*

Sep 2024 & Nov 2024

- **Runner-up** at ETHGlobal BKK Social Good track (2,750+ developers) with a Next.js frontend featuring World ID authentication and blockchain integration via ethers.js and Protokit
- Won **3rd place** (out of 309 projects) at ETHGlobal SG Worldcoin track for building a React frontend with Web3Auth for blockchain access, integrating Privado ID for cryptographic credentials, and Sign Protocol for data authenticity