JOSHUA NEE

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EDUCATION

National University of Singapore, *BEng (Computer Engineering)*   **Aug 2021 - Present**
- Expected Date of Graduation: July 2025, Cumulative Average Point: 4.86 / 5.0
- Course Work: Programming Methodology (A+), Data Structures and Algorithms (A), Software Engineering & OOP (A-), Introduction to Artificial Intelligence (A+), Introduction to Machine Learning (A)
- NUS Overseas Colleges (NOC) New York, Top 5% of Academic Year 23/24 Cohort (Deans' List)

WORK EXPERIENCE

ST Engineering, *Software Engineer* (Singapore)   **May 2024 – Present**
- Developed and maintained 11 XR applications in Swift and VisionOS for Apple Vision Pro, such as user authentication, interactive scenes, and remote monitoring.
- Unified various application capabilities into a cohesive solution, improving overall functionality and user experience.

National University of Singapore, *Teaching Assistant* (Singapore)   **Aug 2022 – Present**
- Designed and delivered class materials, tutorials, and consultation sessions for 27 students in the Data Structures and Algorithms module. (Aug 2022 – Dec 2022)
- Mentored 12 student teams on self-directed software development projects, emphasizing Unity game development and Telegram bot creation, with 10 teams achieving Apollo 11 (Advanced) level and 2 teams attaining Gemini (Intermediate) level. (May 2023 – Aug 2023)
- Guided 13 student teams in the subsequent iteration of self-directed software development projects, focusing on Unity game development, Telegram bot creation, and web application development. (May 2023 – Present)

InTune Auto, *Software Engineer* (New York)   **Dec 2022 – Dec 2023**
- Engineered and deployed 9 major projects, including digital authorization, automated reminders, appointment scheduling, Twilio SMS/Gmail integration, EC2 image attachments, and OpenAI utilization.
- Utilized comprehensive testing strategies with Cypress for frontend and JUnit for backend.
- Leveraged technologies like Heroku, Netlify, DataDog, AWS (ECR, ECS), and Docker, and coded in TypeScript, React, Jersey, jOOQ, and PostgreSQL.

Solutions16, *Software Engineer* (Singapore)   **Sep 2022 – Jan 2023**
- Devised an end-to-end monitoring system using MosquittoMQTT, DigitalOcean, LilyGO SIM7600, and ESP32, integrated with Blynk and MongoDB to collect over 200,000 data points.
- Implemented just-in-time alerts for WhatsApp and Telegram via Meta for Developers and BotFather, successfully averting 2 instances of severe property damage from pump room leaks.
- Automated email notifications using the Blynk IoT platform, eliminating manual 8-hour updates.

PROJECTS & HACKATHONS

Quantitative Finance – QuantEdge Summer Insights Program   **Jun 2024 – Jul 2024**
- Learned financial management, investment strategies, and asset allocation from senior management and analysts.
- Extended externship to complete a technical project in portfolio management, applying advanced concepts.

Blockchain - ArcAid   **Sep 2023 – Sep 2023**
- Awarded Best Education Hack award at PennApps XXIV hosted by University of Pennsylvania, ranking among the top 8 teams out of 354 participants.
- Streamlined the student aid application process with Aleo's zk-SNARKs, implemented 2FA with USB and SHA256 encryption, using Next.js and managed database with Prisma ORM and PlanetScale.

Artificial Intelligence - TravelGPT   **Apr 2023 – Apr 2023**
- Won 1st Place Best Solo Hack in HawkHack 2023 organized by Montclair State University.
- Developed customizable travel itineraries using OpenAI models and integrated MapBox for an interactive map feature.

Telegram Bot - Study Buddy   **May 2022 – Dec 2022**
- Led the development of a Telegram Bot to connect students for study groups, using Python and MongoDB for backend, deployed on Heroku.
- Successfully deployed the bot to 80 Engineering students in a pilot program, with 29 active users.