

JOSHUA NEE

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EDUCATION

National University of Singapore, BEng (Computer Engineering), BEng (Innovation & Design) Aug 2021 - Present

- Expected Date of Graduation: July 2025, Cumulative Average Point: 4.82 / 5.0, Batch of NUS Overseas Colleges NCNY19
- Eligible for H1B1 work visa status, bypassing the lottery requirement due to Singaporean citizenship.

Raffles Institution, Integrated Programme

Jan 2013 - Dec 2018

- GCE A-Levels, Rank Points: 87.5 / 90
- Completed Higher 3 Game Theory at Singapore Management University (Merit)

WORK EXPERIENCE

InTune Auto, Software Engineer (New York)

Jan 2023 – Present

- Engineered 9 major projects encompassing digital authorization, share via Twilio SMS and Gmail, Carfax integration, OpenAI utilization, EC2 image attachments, CapitalOS Fintech collaboration, automated vehicle reminders, appointment scheduling, and identity verification.
- Implemented comprehensive testing strategies, utilizing Cypress for frontend tests and backend integration tests, while also focusing on data pagination and component modularity to enhance system maintainability.
- Leveraged a diverse technology stack including Heroku, Netlify, DataDog, AWS ECR and ECS, and Docker, while coding in TypeScript, React, Jersey, jOOQ, and PostgreSQL to build and deploy scalable, reliable solutions.

Solutions16, Software Engineer (Singapore)

Sep 2022 – Jan 2023

- Developed an end-to-end monitoring system using MosquittoMQTT, DigitalOcean, LilyGO SIM7600, and ESP32, integrating it with Blynk and MongoDB to collect over 200,000 data points.
- Established just-in-time alerts for Whatsapp and Telegram using Meta for Developers and BotFather respectively, successfully preventing 2 instances of severe property damage due to pump room leaks.
- Automated email notifications through Blynk IoT platform, eliminating the need for manual 8-hour updates.

National University of Singapore, Teaching Assistant (Singapore)

Aug 2022 – Dec 2022

- Designed class materials and conducted tutorial and lab sessions for 27 students in the [Data Structures and Algorithms](#) module during the current semester
- Mentored 12 student teams in [self-directed software development projects](#), focusing on Unity game development and Telegram bot creation. Achieved 2 Gemini (Intermediate) level and 10 Apollo 11 (Advanced) level teams.

PROJECTS & HACKATHONS

Blockchain - [ArcAid](#)

Sep 2023 – Sep 2023

- Secured the Best Education Hack award at PennApps XXIV hosted by University of Pennsylvania, ranking among the top 8 teams out of 354 participants.
- Developed ArcAid to streamline the \$200B+ student aid process using Aleo's zk-SNARKs. Implemented 2FA with USB and SHA256 encryption, built using Next.js and managed the 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.
- Built customizable travel itineraries using the ChatGPT AI model and integrated the MapBox API for an interactive map feature.

Telegram Bot - [Study Buddy](#)

May 2022 – Dec 2022

- Led the development of a Telegram Bot designed to connect students for study groups, built in Python with MongoDB for backend and deployed on Heroku.
- Successfully deployed the bot to 80 Engineering students in a pilot program, with 29 formerly active users.

Game Development - [Orbital](#) (Apollo 11 / Advanced)

May 2022 - Aug 2022

- Programmed a self-directed single-player precision platformer game, utilizing sprites and art style adapted from classic games.
- Built the game in C# using the Unity game engine.