

# 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: 4.82 / 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 2022 – 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.