# Nguyen Khoi Nguyen

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## **EDUCATION**

#### NATIONAL UNIVERSITY OF SINGAPORE

Aug 2022 - May 2026

Bachelor of Computing in Computer Science

- Dean' list in Semester 1, AY 22-23
- Second Major in Mathematics
- Relevant courses: Software Engineering, Introduction to AI and ML, Effective Communication for Computing Professionals, Data Structures and Algorithms (A+), Programming Methodology II (A+), Programming Methodology (A+), Discrete Structures (A+), Linear Algebra (A+), Calculus for Computing (A+)

#### **EXPERIENCE**

## PROGRAMMING METHODOLOGY MODULE (CS1101S) Teaching Assistant

Aug 2023 - Nov 2023

Guided year 1 computer science students in achieving understanding of basic methodologies in programming.

#### **DECISION SCIENCE AGENCY** Intern

May 2023 - Aug 2023

• Implemented web and mobile front-end interface integrated into Singlife grow and elevate system using AlpineJS, SCSS, Tailwind, React Typescript and EmotionCSS, enhancing user experience of thousands of users.

#### **PROJECTS**

- Collaborated with team-mates to engineer and fine-tune algorithm to fight in head-to-head tower defence game in Terminal AI Live competition (Fall APAC 2023), clinching overall team third place.
- Engineered backend and mobile frontend for PayDay, a mobile application to reduce risks of online payment for a wide range of users for Tiktok Hackathon 2023, with Nodejs (Express), Firebase and React Native, short-listed to final (submission available at https://devpost.com/software/payday-digital-wallet).
- Led a group of students to develop web frontend and backend for MatchMiner platform, an interest-sharing
  platform (prototype https://matchminer.fly.dev/, code base https://github.com/nknguyenhc/SuperCellMates), using
  Django, PostgreSQL, ReactJS, SCSS, Bootstrap, Redux, reducing social media pressure and encouraging
  interest sharing.
- Directed a group of students to create NeuralCats, a website leveraging OpenAI to generate practice quizzes, aiding students in revising module content for exams (prototype https://neuralcats.azurewebsites.net/, code base https://github.com/nknguyenhc/Neuralcats), with FastAPI, React, EmotionCSS, Redux.
- Developed Telegram bot to track websites and deliver reminders with Typescript, Telegram API and Puppeteer (prototype https://t.me/website\_tracker\_bot, code base https://github.com/nknguyenhc/quack-nkn)
- Investigated mechanisms of coding schemes with C++ and constructed a simulation page to educate users of various available error-correcting codes with Nodejs (Express) and ReactJS (code base available at https://github.com/tranvietkhoa/Coding-Schemes-Simulation).

## **TECHNICAL SKILLS**

Techstacks: Python | Django | ReactJS | Typescript | Redux | NodeJS (Express) | FastAPI | Flask | SQL | C++ |
Java | React Native | Firebase | AlpineJS | SCSS | EmotionCSS | PUG HTML | Tailwind | Bootstrap | Godot |
Docker | Azure | AWS | Puppeteer | OpenAI

### **AWARDS AND SCHOLARSHIP**

- Award: Terminal (by Correlation One and Citadel) Fall 2023 APAC third place
- Award: Tiktok Hackathon 2023 Finalist
- Honour: NUS School of Computing, Dean's List (AY 2022-2023 Semester 1)
- Honour: NUS School of Computing, Top Student in Programming Methodology
- Honour: NUS School of Computing, Top Student in Discrete Structures
- Scholarship: NUS ASEAN Undergraduate Merit Scholarship
- Award: Singapore Physics Olympiad 2020 Gold
- Award: Singapore Mathematical Olympiad 2019 (Open Section) 20th Rank and Gold

#### **EXTRA CURRICULAR ACTIVITIES**

# NUS GAME DEVELOPMENT GROUP, Workshop Lead

Aug 2022 - Present

• Lead workshops on Godot game development engine for new members in Academic Year 2023-2024, equipping members with game development skills within 4 weeks.