

Tan Khang Hou

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Education

National University of Singapore

Bachelor of Computing (Honours) in Computer Science

Aug 2022 - Dec 2025 (Expected)

Singapore

Technical Skills

Languages: Javascript/Typescript, Java, Swift, Go, C, C#, SQL, NoSQL, Python, Dart, \LaTeX , Markdown

Technologies: Next.js, React, TailwindCSS, NestJS, Express.js, React Native, ASP.NET, Spring Boot, Solidity

Concepts: Git, RESTful API, UI/UX Design, Agile Methodology, DevOps, System Architecture, Database Design

Experience

ShareLah

Freelance Developer

Dec 2023 – Jan 2024

Singapore

- Revitalised a 3-year-old legacy React Native and Express.js codebase with over 90,000 lines of code and 1,500 existing users, resulting in a 433% increase of user signups within the first 2 weeks of launch.

Computing for Voluntary Welfare Organisations

Backend Developer

May 2023 – Aug 2023

Singapore

- Migrated a monolithic backend service with over 150,000 lines of code from Ruby on Rails to Golang, achieving a 500% performance boost and substantial enhancement in system maintainability.
- Conceptualised and developed a dynamic form schema in PostgreSQL, removing the need for 17 different hard-coded forms in the codebase.

Transliner

Full-Stack Developer

Mar 2020 – Aug 2020

Singapore

- Migrated a legacy enterprise resource planning (ERP) system from ASP.NET WebForms to ASP.NET Core, improving application performance by 600%.
- Modernised an old Wix website using Angular to deliver a mobile-friendly and interactive web experience.

Centre for Strategic Infocomm Technologies (CSIT)

Backend Developer

Oct 2019 – Feb 2020

Singapore

- Designed systems for a drag-and-drop e-form builder with Spring Boot and MongoDB, empowering companies to easily design highly-customisable surveys.
- Developed a contextual feedback module to enhance internal data collection and analytics capabilities.

Projects

E-commerce Website | Next.js, Serverless API, TailwindCSS, Nodemailer

- Led the end-to-end development of a cost-effective e-commerce website, resulting in a 400% increase in page visits within the first week.

Eye Want to Rest | React Native, Expo

[GitHub Link](#)

- Successfully launched Eye Want to Rest, a user-friendly application that aid individuals in maintaining optimal eye health on both the App Store and Google Play Store with over 1k downloads and a 13.2% conversion rate.

GoLunch | React, Express.js, web3.js, Solidity, Truffle, MySQL

[GitHub Link](#)

- Led a team of four in planning and developing a website that tracks distance travelled by users, which is stored as cryptocurrency to be exchanged for discounts at select restaurants.

Are You Ok? A Mental Health Help Toolkit | Python, Telegram Bot, OpenAI, FastAPI, Pydantic, PostgreSQL

- Collaborated with a team of tech for good enthusiasts to develop a Telegram bot that leverages OpenAI to aid caregivers in engaging in sensitive conversations on mental health.

TremorGuard | Next.js, NestJS, PyTorch, Azure IoT Hub, Flask, Arduino

[GitHub Link](#)

- Developed an IoT solution to classify tremors in patients with Parkinson's disease, including categorising their daily activities using AI and automatically generating their daily activity diaries.

CCA

Google Developer Students Club

Dec 2023 – Present

Technical Lead

Singapore

- Headed a team of 8 software engineers to develop a Volunteer Management System (VMS) for Ground-up Initiative which is designed to manage over 25,000 volunteers and participants using Next.js, NestJS, Prisma, PostgreSQL.

PHolunteers

Aug 2022 – May 2023

Volunteer

Singapore

- Spent over 60 hours volunteering as a befriender and as a primary-school tutor for underprivileged children.

Hackathons

NUS Hack&Roll

Jan 2022 – Jan 2024

<https://devpost.com/tankh99>

Singapore

- **2024 - LooksBadToMe:** A beautifully-designed, interactive code-review game with visual novel elements to teach inexperienced programmers to handle criticism.
- **2023 - HarmonyQuest:** A music gamification application to make learning music enjoyable for children.

RowdyHacks 2021

Mar 2021

<https://devpost.com/software/easyai>

Virtual

- Collaborated in a team to build a B2B platform that allows businesses to customise and deploy their own AI services.