

# Thitiwat Kosolpattanadurong

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## Education

### Bachelor of Computing in Computer Science

2024 - Present

National University of Singapore (NUS)

- CAP: 5.0/5.0; Awarded Deans' List for Academic Year 2024/25 Semester 1 and 2
- Notable NUS Modules taken: CS2040S Data Structures and Algorithms (A+), CS2100 Computer Organisation (A+), CS2030S Programming Methodology II (A+)

## Recent Experience

### Software Developer Intern

May 2025 - Present

Computing for Voluntary Welfare Organisations (CVWO)

Singapore



- Worked alongside a 10-member team to build web and mobile applications supporting partner Active Ageing Centres (AAC) across Singapore.
- Migrated the Home Personal Care (HPC) module from Ruby on Rails to Go, and developed SQL scripts to transfer data from the legacy system to the new infrastructure for data exports.
- Developing a Next-of-Kin mobile app for Kwong Wai Shiu Hospital (KWSH), one of Singapore's charitable healthcare institutions, to help staff broadcast consent requests and serve as a foundation for the future KWSH mobile app system.

### Software Developer

Jan - May 2025

Source Academy


Singapore

- Collaborated on the reimplementation of Stepper, a step-by-step program execution visualization tool used by freshmen in the NUS introductory programming course (CS1101S) for subsequent cohorts. This system has also been integrated into [js-slang](#), an open source npm library.  [js-slang PR](#)
- Creating a React custom code renderer from ESTree (inspired by react-ace and astring libraries) to integrate with the new stepper.  [Front-end PR](#)

## Publication




### A study of Behavior for Magnetic Nanoparticles Clustering through LAMMPS

LAMMPS Research Team

- Differentiating the **clustering patterns** of MNPs in various fluidic conditions using LAMMPS (Molecular Dynamics Framework).  [Publication](#)

## Personal Project

### BOF - An esoteric programming language (BF) with macros | TypeScript

- A BF interpreter developed in TypeScript, with high-level capabilities such as variable declarations, assignments, macros, and recursion.  [Github](#)  [Demo](#)  [Documentation](#)

## Technical Skills

- **Languages:** Proficient in TypeScript, JavaScript and Go; some experience with Rust, C/C++, Python, Java, Bash, SQL, Haskell
- **Libraries and Frameworks:** React, Redux, Next.js, Go-Chi, Axum (Web development), Prisma, Gorm (ORM), ESTree (JavaScript parser)
- **Tools and Technologies:** Docker, Git, GitHub, Google Cloud Platform (GCP), MongoDB, PostgreSQL

## Awards and Certifications

- International Physics Olympiad (IPhO) 2022 Silver medal
- International Mathematical Modelling Challenge 2022 Outstanding Award (Top 3 out of 58 teams)