

# Phanuphat Srisukhawasu

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## EDUCATION

Bachelor of Computing, Computer Science, National University of Singapore

Expected Graduation: Dec 2026

- GPA: 4.79/5.00 (First Class Honours)
- Notable Coursework: Design & Analysis of Algorithms, Operating Systems, Programming Languages, Software Engineering

## WORK EXPERIENCE

Software Engineer Intern

May 2025 – Aug 2025

Computing for Voluntary Welfare Organisations (CVWO)

Singapore

- Collaborated with a 10-person team to design web (React, Redux, Go, Ruby, Rails, PostgreSQL), PWA (Ionic), and mobile (React Native) applications for Active Ageing Centre operations as part of a **GIC-supported impact program**.
- Migrated legacy Ruby on Rails financial reporting module to modern React, Ionic, and Go stack, independently delivering 22,000+ insertions and 12,000+ deletions while upgrading CI/CD pipelines to improve maintainability.
- Rewrote account statement querying logic using concurrent goroutines, overcoming critical performance bottlenecks for processes handling 4,000+ transactions across 800+ client accounts, scheduled monthly via cron job.
- Engineered reusable digital consent management system in Go and React Native, enabling hospitals to contact patients' next of kin with e-signatures, eliminating manual processes for 2,000+ patients.

Research Student

May 2022 – Mar 2024

Department of Physics, Faculty of Science, Ramkhamhaeng University

Bangkok, Thailand

- Examined deep learning solutions for astronomy and space physics problems under Dr. Suttiwat Madlee's guidance.
- Developed an automated cosmic ray detection system for small cloud chambers using **YOLO models in PyTorch**, reducing analysis time from hours to minutes while maintaining 80% accuracy (doi.org/10.1088/1742-6596/2653/1/012007).
- Innovated a novel X-class solar flare identification method utilizing custom convolutional autoencoders, achieving 30% accuracy improvement and resolving class imbalance issues (doi.org/10.22541/essoar.174431882.20472576/v1).

## PROJECTS

Planetary Image Stacker ([github.com/oadultradeepfield/planetary-image-stacker](https://github.com/oadultradeepfield/planetary-image-stacker))

- Engineered a fast, memory-efficient C++ planetary image stacking tool with OpenCV, consolidating the core functionality of two popular software (PIPP and AutoStakkert!) into a single streamlined application.
- Optimized image alignment and stacking algorithms via OpenMP parallelization, delivering a 3.5x faster performance.

RedactKit - TikTok TechJam 2025 (<https://devpost.com/software/redactkit>)

- Built an on-device machine learning model for PII redaction within iOS devices, leveraging Swift, PyTorch and CoreML.
- Designed and fine-tuned a NeuroBERT-Mini pipeline, integrating the OpenAI API for PII placeholder generation and applying backward fake-PII injection to synthesize training data, achieving a 95% F1-score on a custom test set.

Boonchubike CMS ([phanuphats.com/projects/boonchubike-cms](https://phanuphats.com/projects/boonchubike-cms) | [github.com/oadultradeepfield/thai-address-api](https://github.com/oadultradeepfield/thai-address-api))

- Built a client management system web app for a bicycle business in Thailand using React, TanStack, and Firebase.
- Implemented a reusable PDF generation feature integrating the Go-based Thai Address API to automate delivery labels, eliminating 800+ pages of manual Word documents and improving reliability.

## SKILLS

Programming Languages  
Frameworks, Libraries, & Tools

Go, Java, Python, C++, C, SQL, JavaScript, TypeScript, Ruby, R, HTML, CSS  
React, Next.js, Tailwind CSS, Rails, PostgreSQL, Docker, AWS, GCP, Git, PyTorch

## ACHIEVEMENTS

- International Astronomy Olympiad (IAO) 2021 – Silver Medal (Top 8%)
- International Olympiad on Astronomy and Astrophysics (IOAA) 2022/23 – Bronze Medal