Phanuphat Srisukhawasu

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PROFESSIONAL SUMMARY

Astronomy Olympiad medalist turned Computer Science major with a **results-driven mindset** and keen attention to detail. Passionate about building **complex, scalable systems** and applying technology to create positive impact across disciplines.

EDUCATION

Bachelor of Computing, Computer Science, National University of Singapore Expected Graduation: Jun 2027

- GPA: 4.79/5.00 (First Class Honours)
- Relevant Coursework: Object-Oriented and Functional Programming (Java), Data Structures and Algorithms (Java)

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-sponsored program.**
- **Migrated legacy Ruby on Rails financial reporting module to modern React, Ionic, and Go stack**, individually contributing **22,000+ insertions and 12,000+ deletions** while upgrading CI/CD pipelines, significantly improving maintainability.
- **Rewrote account statement querying logic** using concurrent goroutines, **overcoming critical performance bottlenecks** for processes handling 4,000+ transactions across 800+ client accounts.
- **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

Boonchubike CMS (phanuphats.com/projects/boonchubike-cms | 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 **Thai Address API** to automate delivery labels, **eliminating 800+ pages** of manual Word documents and **improving reliability.**

MiniMapReduce (github.com/oadultradeepfield/minimapreduce)

- Built a lightweight **MapReduce framework in Java** utilizing **ForkJoinPool** for **efficient concurrency on multi-core systems.**
- Developed a **pluggable API** supporting **user-defined mappers and reducers**, with examples for data aggregation and word counting, allowing flexible execution of various data transformations within a single JVM environment.

SKILLS

Programming Languages	Go, Java, Python, SQL, JavaScript, TypeScript, Ruby, C++, C, R, HTML, CSS
Frameworks, Libraries, & Tools	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