Phanuphat Srisukhawasu

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EDUCATION

Bachelor of Computing, Computer Science, National University of Singapore

- GPA: 4.63/5.00 (First Class Honours)
- Relevant Coursework: Object-Oriented and Functional Programming (Java), Data Structures and Algorithms (Java)

WORK EXPERIENCE

Software Engineer Intern

Computing for Voluntary Welfare Organisations (CVWO)

- Collaborated with a team of 10 to develop web and mobile apps for partnering Active Ageing Centres in Singapore.
- Migrated 10,000+ lines of legacy Ruby on Rails code to React and Go for accounting modules, improving maintainability and performance by 50% for web application serving 10+ elderly care centers.

AI Research Student (Mentored By Dr. Suttiwat Madlee)

Department of Physics, Faculty of Science, Ramkhamhaeng University

- 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.
- Engineered an X-class solar flare identification solution with custom convolutional autoencoders in PyTorch as an anomaly detector, improving accuracy by 30% and addressing class imbalance challenges.

PROJECTS

Micron AI Challenge (kaggle.com/code/psrisukhawasu/micron-ai-otter-notebook)

- Designed a PCA pipeline reducing 500+ time series features to 50 tabular features while preserving 90% variance.
- Trained tree-based models for lightweight prediction with competitive accuracy in virtual metrology for semiconductors.

Boonchubike (boonchubike.com)

- Rebuilt a Thai bicycle shop's e-commerce site with React, Go, and AWS (Lambda + API Gateway) to scale for higher traffic.
- Designed a built-in analytics dashboard with Google Analytics to track website visitors for 100+ customers nationwide.

Olympliance (olympliance.netlify.app | github.com/oadultradeepfield/olympliance-backend)

- Built a forum to facilitate Science Olympiad problem discussion with gamified elements to enhance user engagement.
- Technologies: React, TypeScript, Redux, Go, PostgreSQL, Docker, JWT Authentication, Google Cloud Platform.

PUBLICATIONS

- Srisukhawasu, P., Silapasart, A., Limjanon, T., Madlee, S., Samanrak, C., Somnam, T. DeepHCC: Deep learning model for real-time count rate determination of particles in homemade cloud chamber. Journal of Physics: Conference Series, vol. 2653, no. 1, 2023. doi.org/10.1088/1742-6596/2653/1/012007.
- Srisukhawasu, P., Somnam, T., Madlee, S. Enhancing Strong Solar Flare Prediction Using Convolutional Autoencoders for Anomaly Detection on HMI Magnetograms. ESS Open Archive, 2025. doi.org/10.22541/essoar.174431882.20472576/v1.

SKILLS

Programming Languages Python, Java, Go, JavaScript, TypeScript, C++, C, SQL, R, HTML, CSS Frameworks, Libraries, & Tools React, Next.js, Tailwind CSS, Spring Boot, PyTorch, Docker, AWS, PostgreSQL, Git

AWARDS

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

May 2025 – Aug 2025

Singapore

Expected Graduation: May 2027

May 2022 – Mar 2024 Bangkok, Thailand