

# Supakorn (Nikko) Juengsophonvitavas

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## Education

### University of St Andrews, UK | Astrophysics Integrated Masters (Hons)

2020 - Present

Expected to graduate with a strong 2:1

**Relevant Modules:** Advanced data Analysis, Monte Carlo Radiation Transport Techniques, Knowledge Discovery & Datamining, Computational Astrophysics & Physics, Data Handling, Object Oriented Programming, Extragalactic Astronomy, Observational Astrophysics, Contemporary Astronomy, Cosmology, Physics of Nebulae and Stars 1&2

**Final Year Project:** Investigating AGN variability in the LSST

## Work Experience & Courses

### Phupha Tutor

July 2021 - Present

Private Tutor

- Tutored over 17 students in Europe, Asia, and Oceania regions
- Curriculum taught: Pre-IGCSE Maths and Physics, IGCSE Maths and Physics, A-Levels Maths and Physics, BMAT Physics, NCEA

### Synthetic Optic Group, University of St Andrews

June - August 2024

Research Intern - Supervisor: Prof Andrea Di Falco

- Developed a procedure to 3D print microfluidic devices on glass and treated chips on DLP printers
- Designed test prints for micron-scale structures to fine-tune print parameters for different resins
- Taught and advised group members on operating and maintaining SLS and DLP printers

### University of St Andrews Observatory

May - June 2024

Research Intern - Supervisor: Dr Alexander Scholz

- Perform precise polar and alignment on the robotic telescope to achieve sub-1 minute tracking
- Update and integrate control software to the latest operating versions
- Perform fine-tune adjustments to the finderscope, focuser, and camera alignment

### Laidlaw Scholarship Leadership Project - Timothy Smith Network

July - August 2023

Coding Assistant Instructor

- Designing and teaching coding and Arduino to over 30 middle and high school students
- Implementing Firmata to streamline teaching material for coding and microcontrollers
- Supervise students on final projects in coding and 3D modelling

### Laidlaw Scholarship Research - Galaxies Group, University of St Andrews

May - December 2022

Scholar/Research Intern - Supervisor: Dr Juan V. Hernández Santisteban

- Research title: Identifying active galactic nuclei for the SPHEREx observatory
- Cross-matched ~2.6 million sources from archival sky surveys using ADQL
- Results accepted by the Las Cumbres Observatory for further studies in preparation for SPHEREx

### National Astronomical Research Institution of Thailand (NARIT)

July 2020

Student Attendee - Advance Engineering Workshop

- Studied the available technology for the development of the engineering projects conducted by NARIT
- Observed the technology and construction of the Thai National Radio Telescope
- Visited the production plant of the mirror coating machines designed for the Cherenkov Telescope Array

### Astronomy Data Handling Python Course - Newton Fund Program/NARIT

October 2019

Attendee

- Attended lectures on astrophysical concepts ranging from planetary orbits to stellar evolution
- Focused on Python coding for data visualisation and handling astronomical data
- Created stellar structure simulations using astronomical data queried from ASTROHUB

Intern

- Trained in basic astronomical observation and how to set up different types of telescopes
- Trained on SalsaJ software and wrote a report on finding the distance to the M100 Galaxy
- Shadowed Astrophysicists and gained insight into the research across different fields

## LEADERSHIP ROLES

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**Co-organiser - Physics and Astronomical Society's annual ball**

September 2024 - Present| Organise and sort the logistic of the event

**Lead Organiser - St Andrews Interdisciplinary Science Conference**

March 2023 - Present| Organise and chair meetings and act as the primary point of contact

**President - University of St Andrews Astronomical Society**

March 2023 - March 2024| Chair committee meetings and represent the society

**School Ambassador - University of St Andrews, School of Physics and Astronomy**

May 2021 - Present | Represent the school at official events.

**Senior Observing Director - University of St Andrews Astronomical Society**

May 2022 - March 2023| Operate the telescopes during observation sessions for the society

**Event Convenor - University of St Andrews Astronomical Society**

May 2021 - May 2022| Organise and run events for the society

**Event Officer - University of St Andrews Thai Society**

May 2021 - May 2022| Assists the Event Director in organising and running events

**Freshers Representative- University of St Andrews Astronomical Society**

September 2020 - May 2021| Promote and inform Freshers students of the society

**First Year Astronomical Student Representative - University of St Andrews**

September 2020 - December 2020 | Represent the students in the Astronomy modules

## Awards and Qualifications

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**Laidlaw Foundation Research and Leadership Scholarship**

February 2022 | Awarded to undergraduate students to undertake a research and leadership project

**University of St Andrews Dean's List**

June 2021 | Awarded to Students with a mean grade over 16.5 on the university's non-linear scale

June 2022 | Awarded to Students with a mean grade over 16.5 on the university's non-linear scale

**Bronze, Silver, and Gold Level Completion - Duke of Edinburgh International Award**

June 2020 | Awarded to students committed to a wide range of activities during high school

**High School Physics Prize**

June 2020 | Awarded to a student with the highest score in physics across the year

## Others

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Professional Membership: Fellow of the Royal Astronomical Society, Associate Member of the Institute of Physics

Computer Skills: Basic Java, OOP, Data Handling, Python, SQL/ADQL, LaTeX, Fortran, TOPCAT

Language: English (Fluent), Thai (Fluent), Japanese (Elementary Beginner)

Conference Attended: National Astronomy Meeting 2022, School of Physics and Astronomy Burn Conference