

HRISHIKESH KALYANARAMAN

217-200-2548 | hk39@illinois.edu | www.linkedin.com/in/hrishikeshkalyanaraman | <https://github.com/Hrishikesh-Kalyanaraman>

EDUCATION

University of Illinois at Urbana-Champaign
Bachelor of Science in Engineering Physics
Computational Physics Track, CS Minor

December 2024

GPA: 3.85/4.00 (Dean's List, James Scholar)

Olympiads:

International Physics Olympiad (IPHO)

Asian Physics Olympiad (APHO)

SKILLS

Programming Languages: Python, C++, C, CSS, Java, R, SQL, JavaScript, Shell Scripting, REST API's, Flask

Platforms: GitHub, Linux, Quartus, Docker

Other: Communication, Leadership, Team Player (7+ years of theatre experience), Design Thinking

Languages: Professional fluency in Tamil, Hindi

EXPERIENCE

Research Intern, National Centre for Supercomputing Applications

June 2022-Present

- Modified and created Continuous Integration workflows for the Einstein Toolkit using GitHub Actions
- Documented and adapted Einstein Toolkit testing framework for SelfForce-1D code infrastructure
- Presented work to Einstein Toolkit contributors and changed UX based on feedback
- Presented research at Illinois Summer Research Symposium and received NCSA Letter of Recognition

Strategy and Telemetry member, Illini Solar Car

January 2022-Present

- Optimize current long term strategy program to improve accuracy of predictions
- Performed data analysis on car race data on python using NumPy, Matplotlib
- Mentored onboarding members under Strategy program
- Transferred Telemetry backend regarding serial ports from JavaScript to Python

Student Programmer, Liquid Helium Facility

June 2022-September 2022

- Soldered and calibrated pressure transducer built from Raspberry Pi using python and Excel
- Systematically mapped helium pipes running through university buildings
- Developed python script that automates collection of temperature data using GLOB and OS packages

Computer Science Course Assistant, University of Illinois Urbana-Champaign

January 2022-May 2022

- Created educational videos on various CS concepts to improve content comprehension
- Explained technical concepts to students through help-site
- Actively responded to questions on course forum

Team Leader, Global Research Immersion Program

May 2019-December 2019

- Led team of 4 peers to develop a prototype for shopping app using Design Thinking
- Presented final presentation to faculty at NUS and NTU universities in Singapore.

PROJECTS

Physics Simulations

May 2021 – September 2021

- Simulated collisions on python using pygame and pymunk libraries
- Used simulation to explain collisions more intuitively to peers

Water Level Indicator

May 2021 – September 2021

- Soldered and debugged circuit that detects water level using transistors
- Presented project to physics faculty at high school