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   **Expected May 2024**
Bachelor of Science in Engineering Physics   GPA: 3.85/4.00 (Dean's List, James Scholar)
Computational Physics Track, CS Minor

Related Coursework:
Introduction to Data Structures, Quantum Physics, Multivariable Calculus, Relativity

SKILLS

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

Version Control: GitHub, GitLab, Bitbucket.

Platforms: GitHub, Linux, Quartus, Docker

Other: Communication, Leadership, 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
- Collaborated with Einstein Toolkit contributors and changed UX & UI 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 3 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 50+ helium pipes running through university buildings
- Automated collection of temperature data using GLOB and OS packages on python saving 5 hours/week.

***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 60+ students through help-site
- Actively responded to 20+ questions on course forum

***Team Leader,* Global Research Immersion Program**   May 2019-December 2019
- Founded team of 4 peers to develop a prototype for shopping app using Design Thinking
- Led 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
- Debugged electrical schematics and soldered a circuit that detects water level using transistors
- Proposed project to physics faculty at high school