

# A K VAIBHAVA

Physics Major at IISER Thiruvananthapuram

vaibhava23@iisertvm.ac.in | 8123 0130 91 | LinkedIn:Vaibhava Addagal

## Summary

---

Astrophysics enthusiast with a passion for understanding the universe. Skilled in theoretical modeling, data analysis, and science communication. Adaptable, curious and committed to continuous learning in astrophysics.

## Education

---

**IISER Thiruvananthapuram**, BSMS Dual Degree in Applied Physics Aug 2023– July 2028

- **Coursework:** Thermal and Statistical Physics, Numeric Computing , Scientific Computing , Experiments in Optics, Electricity and Magnetism , Numeric Computing , Logic and Discrete Mathematics , Machine Learning , Data Analysis and Visualization , Quantum Mechanics , Electronics , Advanced Physics Lab

## Experience

---

**Hostel Secretary**, Students Affair Council - IISER Thiruvananthapuram Aug 2024 – Jul 2025

- **Hostel Administration & Community Engagement:**Coordinated hostel affairs and maintenance requests, liaised between residents and admin, and organized feedback initiatives and events to enhance student life.

**CeNSE Summer School**, Semiconductor Technology and Microfabrication June 2024

- **Virtual Micro/Nano-Fabrication:** Completed online photolithography and CVD/ALD modules with remote lab demos, optimizing exposure doses and deposition rates for sub-micron patterning.
- **Remote Device Metrology:** Analyzed I–V/C–V and ellipsometry datasets via cloud-based platforms, correlating thin-film uniformity and interface traps with MOS device performance.

**OnLine Summer School**,Remote Sensing and GIS for Environmental Studies Jul 2021

- **Virtual Remote Sensing & Image Analysis:** Completed online modules in satellite imagery acquisition, preprocessing, and classification, optimizing NDVI and land-cover mapping algorithms.
- **Cloud-Based GIS Spatial Analysis:** Performed spatial data integration and geostatistical modeling via ArcGIS Online/QGIS Cloud, correlating topographic, climatic, and land-use layers for environmental assessment.

**Core Committee Member**, Coding Club - IISER Thiruvananthapuram Jan 2024 – Present

- Conducted coding events, curated learning resources, and mentored juniors in programming.
- Played a key role in organizing workshops and competitions to promote coding culture.

**Active Member**, Parsec Physics Club – IISER Thiruvananthapuram Aug 2023 – Present

- Participated in physics discussions, quizzes, and outreach events to promote scientific thinking.
- Helped organize talks and student-led initiatives to build an active physics community.

## Projects

---

**Science Communication Project**, Humanities Course – IISER Thiruvananthapuram 2023–2024

- Led a semester-long team project on effective science communication, developing public speaking, leadership, and audience-tailoring skills.

**Static Model Designer**, Anvesha Science Fest – IISER Thiruvananthapuram Sep 2023 – Present

- Built static models and designed interactive displays to communicate physics concepts for exhibitions and public engagement.

## Technologies

---

**Languages:** C++ , C, SQL, Python, R-Lab,  $\text{\LaTeX}$