

Neeraj Nandan Akella

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SUMMARY

An aspiring undergraduate physics student, with a keen interest in quantum mechanics and a strong foundation in mathematics. Hardworking, and determined to understand counter intuitive ideas and engage in problem solving. Experienced in experimental sciences with an open attitude towards learning and obtaining further valuable insights in the field.

EDUCATION

BSc Physics • King's College London Sep 2023 - June 2026

- Completed 1st and 2nd Year of the Physics Undergraduate course
- An average of 88% in 1st Year and 93% in 2nd Year
- On track towards a First Class Degree
- Awarded the Dillon Prize (1st Year) and Andrewes Prize (2nd Year) of NMES (Natural, Mathematical and Engineering Sciences) sector of King's College London

Oakridge International School • Hyderabad Aug 2008 - June 2023

- Graduated IB Diploma Programme with 40/45 (Higher Level subjects: Physics-7, Math-7 and Chemistry-6)
 - Participated in several math competitions during years 6 to 11, including Clash of Pi and Aditya Birla's Infinity competition.
 - Awarded the Honour Roll award twice for achieving 70%+ performance during MYP (Middle Year Program) Years 1-5.
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ACADEMIC PROJECTS & EXTRACURRICULAR ACTIVITIES

Head of Education for Quantum Mechanics Society Sep 2025 - Present

Formulating Lesson Plans and quizzes for society events to build engagement

- Conducting a series of lessons on the history of Quantum Mechanics
- Collaborating with the Organizing committee members to plan future sessions

Scientific History Essays Oct 2025 - Present

A catalogue of essays based on interesting experiments and theories in science history

- Essays detailing various physics topics on neerajnandan05.github.io/essays.html
- Collaborative videos with another student, explaining the topics in brief
- Current Catalogue:
 - Essay on Lorentz's theory of electrons, its ability to explain optics and its impact on modern electromagnetism
 - Essay on the History behind Stern-Gerlach Experiment, how it proved space quantisation and convinced physicists of the quantum nature of the universe

Lab Report on the Zeeman Effect

Nov 2024 - Dec 2024

- Conducted an experiment with a fellow student (lab partner) investigating the Zeeman effect as part of the 2nd Year Experimental Physics Module
- Written a lab report detailing the procedure and results of the experiment conducted
- Received a grade of 96/100 for the final lab report

Lab Project on extending the Michelson Interferometry

Nov 2024 - Dec 2024

- Conducted an experiment with a fellow student (lab partner) extending the scope of Michelson Interferometry as part of the 2nd Year Experimental Physics Module
- Measured the temporal coherence for multiple light sources using a similar procedure detailed by the course for another experiment
- Explained the details of the procedure and the results obtained to a group examiners through an oral presentation with lab partner

IB Extended Essay in Physics

Nov 2022 - May 2023

A compulsory module in IB curriculum, requiring the student to select a subject and propose a research topic to investigate further

- Investigated the relation between the angle of a ship wake and its speed
- Received an A grade for the Extended Essay

IB Mathematics: Analysis and Approaches Internal Assessment

Nov 2022 - May 2023

A required assignment for each module in IBDP

- Investigated the Fourier series and its application in harmonizing

CS50P Course

Jul 2025 - Nov 2025

Completed the free Harvard's introductory python course

Trinity Electronic Keyboard Grade Initial to Grade 5

Sep 2018 - Dec 2024

Completed the Trinity Electronic Keyboard exam for grades Initial, First, Fourth and Fifth

- Passed with High Distinction for Initial, Fourth and Fifth Grades
- Passed with Merit for First Grade

Composing Soundtrack for a Short Film

Feb 2024 - Feb 2025

Composing the background score for a independent short-film called 'Nisaacharudu'

Music Composition

Sep 2022 - Present

Composing music as hobby and uploading each piece on YouTube at [youtube.com/](https://youtube.com/@nnmusic2313?si=jPdVBtoHUs4PSOcH)

SKILLS

- Technical Skills:** Laboratory Experience, Mathematics for Physicists, Python, MATLAB, Microsoft Office
- Soft Skills:** Analytical Thinking, Effective Time Management, Collaborative Skills
- Languages:** English, Telugu