

Ishan Biyala | Resume

Triangle Area, North Carolina

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Education

University of North Carolina at Chapel Hill

B.S. Physics

Aug 2025 – Present

Current coursework: COMP 210: Data Structures, MATH 381: Discrete Math,
Physics 118: Mechanics and Special Relativity

Green Hope High School

High School Diploma, GPA: 4.0/4.0

Aug 2021 – Jun 2025

Relevant coursework: AP Computer Science A, AP Statistics, AP Calculus BC,
AP Physics 2: Electricity & Magnetism

North Carolina School of Science and Mathematics

NCSSM Online, GPA: 4.0/4.0

Aug 2023 – Jun 2025

Relevant Coursework: Computational Physics, Aerospace Engineering, Multivariable Calculus

Research, Experiences, Projects

NCSSM, Durham

Summer Research in Mathematics

2024

- Submitted first solution for AMM Problem #12449 (team of 3)
- Poster at NC Undergraduate Research and Creativity Symposium
- Learned advanced \LaTeX and collaboration skills

Simulations, NCSSM, Online

Solar System Simulation & Mars Mission Simulation

2023

- Simulated orbits of Sun, planets, asteroid belt, Kuiper belt, and Oort cloud
- Modeled elliptical satellite orbits around Mars
- Built in Trinket using Visual Python (GlowScript)

Physics Events, Online

Quarknet & Sanford Underground Research Facility (SURF)

2023 – 2024

- 2023 World Wide Data, Quarknet: Analyzed CMS detector data (LHC), measured dimuon event angles.
- 2024 ATLAS Z-path Measurement, Quarknet: Classified 50 collision events (double lepton, double gamma, etc.
- 2024 Online Dark Matter Masterclass, SURF: Analyzed XENON1T detector data, set limits on WIMP interactions.

Kramden Institute

Volunteer

2022 – 2024

- 110+ hours building/troubleshooting computers for underprivileged families.

Game Development

Unity & C#

2020 – 2023

- 2d platformers, 3D combat systems, 2.5 platformers
- Space Race: 2D platformer on itch.io

Skills

Programming: Python, Java, C#

Scientific Computing: Physics Simulations, Data Science, Machine Learning

Python Libraries: TensorFlow, Scikit-learn, NumPy