UTKARSH SINGH

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EDUCATION

University of Illinois at Urbana-Champaign - Champaign, IL   Expected Graduation: May 2027
- **Major:** *B.S in Data Science and Astronomy | Minor in Computer Science*
- **GPA:** 4.00/4.00
- **Relevant Courses**: Introduction to Computer Science I & II (Java & C++), Discrete Structures, Data Science Exploration (Python), Linear Algebra with Computational Applications (Python)

PROFESSIONAL AND LEADERSHIP EXPERIENCE

Headstarter AI   **Remote**
Software Engineering Fellow   *July 2024 – Present*
- Developing and implementing five AI-driven projects over a seven-week program.
- Collaborating with a team of engineers to build and ship products to 1,000+ users.
- Participating in hackathons, real-world meetups, and weekly sprints to deliver production-level code.
- Gaining hands-on experience with cutting-edge technologies such as HTML, CSS, Python, C++, ReactJS, NextJS, Firebase, AWS, and OpenAI.
- Receiving personalized feedback and mentorship from experienced engineers and industry professionals.

Department of Physics, The Grainger College of Engineering   **Champaign, IL**
Learning Assistant   *January 2024 – Present*
- Teach students to compose lab reports and other practical lab skills during weekly 2-hour sessions.
- Assist in office hours to clarify doubts related to university physics courses.
- Developed lab activities for students through month-long projects.
- Conducted multiple student interviews to gather feedback and update course content.
- Actively learn new teaching strategies and psychological approaches to increase learning efficiency.

University of Illinois Astronomical Society   **Champaign, IL**
Astronomer   *August 2023 – Present*
- Taught members critical analysis tools in Python such as Pandas, MatPlotLib, SciKit Learn, and more along with necessary astronomical knowledge to perform analysis on web datasets.
- Organized dark site trips and presentations from various professors and graduate students.
- Set up telescopes for monthly Astronomy Open Houses at campus observatory.

Technology Club   **Mumbai, MH**
Head Designer   *August 2021 – March 2023*
- Led a project to design an interactive vending machine using the Arduino development environment.
- Taught members basic coding in Python and Java to write codes for tech projects.
- Weekly updated club's newsletter with latest developments in tech.

IB Resources   **Mumbai, MH**
Group Leader   *August 2022 – March 2023*
- Led an initiative to create a platform with helpful notes and resources for the IB board.
- Used Figma to design a website and create a logo.
- Uploaded handwritten notes and top study resources.
- Mentored juniors and helped them with IB work as part of the initiative.

RESEARCH AND VOLUNTEERING

Group Leader, Seva Charitable Trust   **Mumbai, MH**
- Led an initiative to support the Tribal community living inside the Sanjay Gandhi National Park forest.
- Visited Sanjay Gandhi National Park and conducted interviews to produce a documentary about their business and struggles, generating awareness and funds through various social media platforms.

Group Leader, Hamari Sillai   **Mumbai, MH**
- Led an initiative to help a business empowering women from low income communities.
- Led a team in conducting an on-site detailed analysis of their business using business management and economic theory.
- Created an Amazon Account and E-shop for the NGO to increase the number of orders.

Astronomy Research Paper, B. D. Somani International School   **Mumbai, MH**
- Researched under guidance of a physics professor on the parallax method and parallax error.
- Conducted practical experiments ranging from the length of a table to a football field.
- Evaluated the scientific accuracy of parallax over varying distances and authored a 15-page-long paper on the research.

Tutor and Mentor, Yasham Foundation   **Mumbai, MH**
- Tutored underprivileged children in mathematics and English
- Developed and tracked personalized learning plans to address individual student needs.
- Collaborated with other mentors to organize extracurricular activities and workshops.

AWARDS AND HONORS

University of Illinois at Urbana-Champaign: Dean's List - For maintaining a GPA of at least 3.93/4.00   **2023 - 2024**
B. D. Somani International School, Mumbai: Honors Roll - For maintaining a GPA of at least 3.50/4.00   **2021 - 2023**
United Kingdom Mathematics Trust - Silver Certificate
SAT : 1510/1600 : Math - 770 | English - 740

SKILLS & INTERESTS

Programming Languages: Strongest in Python and Java, Comfortable in Jupyter, Linux/Unix and HTML
Frameworks: MATLAB, Pandas, Numpy, Astropy, MatPlotLib, SciPy stats, SciKit-Learn, Seaborn, Git, Microsoft Office