

Tejaswini Samanta

tejaswinisamanta913@gmail.com | [LinkedIn](#) | [GitHub](#) | [Website](#)

EDUCATION

Miranda House College, University of Delhi

North Campus, Delhi, India

BSc Mathematics (Honours)

Aug. 2024 – (Expected Graduation) Aug. 2027

- Relevant Coursework: Calculus, Algebra, Elementary Real Analysis, Statistics and Probability
- Organisations: Entrepreneurship Cell, Mathematics Society, The Galovate Project

EXPERIENCE

Undergraduate Research Assistant

Oct. 2024 – Present

Miranda House, University of Delhi

New Delhi, IND

- Explored ways to visualize GitHub collaboration in a classroom setting

Student Researcher; Science Internship Program (SIP)

June 2023 – Aug. 2023

University of California, Santa Cruz

Remote

- Researched existing public data archives for galaxy properties (masses and distances) of the nearby group members
- Reduced the Gemini/GMOS spectra of galaxies targeted in the field (time permitting)
- Estimated the spectroscopic redshifts and thus infer distances to the GMOS galaxies
- Inferred the fraction of the FRB dispersion arising from the galaxies studied above
- Invited to present at the Life and Space Conference 2023 by Polish Astrobiology Society
- Invited to the Harvard Science Research Conference 2023 by The Harvard Undergraduate Research Association

Girls Who Code : Summer Immersion Program

August 2024

Girls Who Code

Remote

- Engaged in a transformative program led by industry like *Morgan Stanley*, *MetLife*, *Bank of America*, and *Accenture*. Developed hands-on skills and collaborated with peers and industry professionals; programmed 2 games
- Explored a game design curriculum and organized the school's first Scratch programming competition.

TECHNICAL SKILLS

Languages: Python, C, MySQL, LaTeX, HTML/CSS, R

Frameworks: React, Node.js, WordPress

Developer Tools: Git, Docker, VS Code, Visual Studio, Figma

Libraries: pandas, NumPy, PyTorch, scikit-learn, Matplotlib, Astropy, Scipy

PROJECTS

GAIA App | Python, PyTorch + library : PSutil + matplotlib, Figma

September 2024

- GAIA, a server manager, a middleman app between server providers and our clients - small and medium businesses - which would allow for a better sharing of server resources and also help limit the energy usage of the servers.
- It schedules them to turn on and off using an AI and divide server usage between different clients while assuring privacy, cost minimisation, and energy efficiency.

PCOS Chatbot | Python, K-Nearest Neighbors (KNN), LangChain, LLaMA, Generative AI

September 2024

- A medical chatbot specializing in PCOS and women's health using RAG with BioMistral-7B model, KNN, Langchain for pipeline, Sentence-Transformers for embedding, and Chroma as the vector store.

phishingDetector | Python, PyTorch + library : PSutil + matplotlib, Figma

September 2024

- Developed an ML model to detect phishing links by analyzing URL attributes like IP type, length, shortening service usage, and domain age, and classifies them as legitimate or phishing (trained on 300+ URLs).

HONOURS

AI4GOOD INCUBATOR by Teens in AI and Sage: Global 2nd Place Winner; won USD 300 cash prize

Student Space Congress '23 by NewSpace Chicago: Global High School Winner; won USD 500 cash prize

IRIS National Fair Finalist 2024: Physics and Astronomy category award by the Govt. of India

WOMANIUM AstroBiology: Special Mention, Global Finalist; Top 6/300+ teams amid UG/PG/PhD academics.

Best Functional Website Award: The Stanford Daily - Tech Journalism Program (USD 2180 Scholarship)

OTHER EXPERIENCE

Millennium Fellow

Aug. 2024 – Dec. 2024

Miranda House, University of Delhi

New Delhi, IND

- United Nations Academic Impact and MCN present the Millennium Fellowship to elevate undergraduate leaders.
- Selected as a fellow (Top 5) of 4000+ leading peers from over 280 campuses worldwide among 52,500+ applicants from 6000+ campuses.

EcoGreen2030, Founder and President

Aug. 2022 – July 2024

Non-profit Organization

New Delhi, IND

- Collaborated with rural Nigerian businesses, implementing quality control systems and leading initiatives in brand design, advertising, and financial planning..
- Led initiatives in brand design, advertising, financial planning, and establishing a micro-grant to support business growth and community sustainability.
- Established a micro-grant program, supporting business growth and community sustainability.
- Fundraised USD 1K for schools, sanitation, and healthcare projects through the Global Giving Little by Little campaign in sub-Saharan Africa.
- Invited to Indiana University Summer Experience in Sustainability (2023), Bermuda Youth Climate Summit (2023), and Girl Up India Leadership Summit (2023).

Vice Cultural Captain (11th), Class Monitor (9th, 10th)

Aug. 2021 – March 2023

Army Public School(s)

Ahmednagar/New Delhi, IND

- Installed and managed sanitary napkin vending and disposal machines, raised funds, led advertising, and engaged students. Coordinated with a team of 7 to organize 2 sports, 13 cultural, and 2 annual inter-school events.
- Led successful charity events, including *Magnum Opus* and *The Musical Day* event.
- SEWA CBSE project: Organized donation drives, wrote street plays and collected essential items for under-resourced communities and temples.

PROJECTS

Mentorship For Teen Artists of Color-Writing Cohort | *The Colorization Collective* and *TeenTix* August 2024

- Selected for mentorship program that connects BIPOC professional artists with teen artists of color.
- Wrote an article titled "How Combating Stubble Burning Could Help Solving the Delhi Environmental Crisis"
- Mentored for 5 weeks by Lila Bonow artist, gained skills in creative writing. Exhibited work at a month-long exhibition at A/NT Gallery

VOLUNTEER

National Service Scheme: Student Volunteer

ScribeScribed for specially-abled students in 12th grade in the 2022-23 session.

HONOURS

Bronze Award Winner by ClimateScience Olympiad 2024: Proposal was in Top 50 out of 2700+ proposals

Solving for Humanity Challenge: Proposal won 4th globally with 2800 votes in 132 countries; presented to UNDP

Manmade climate change | News Article | Yale Daily News | Summer Journalism Program 2023

The Ethical Leadership Experience: Awarded USD 250 scholarship by The Louis Jonas August Foundation

Manthan - Deep Dive into Ideas: Winner; presented to Jaipuria Institute of Management, awarded Rs 2000 cash