

Niloy Deb Barma

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Education

Cantonment Public School and College, Rangpur

High School Graduate, Science Group. GPA 5.00/5.00

Relevant Coursework: Bangla, English,

Information and Communication Technology (ICT),

Physics, Chemistry, Biology, Mathematics

Honors and Awards:

- Bronze Honor in International Youth Math Challenge (IYMC)
- Quarter Finalist in ClimateScience Olympiad
- Qualified for 2nd Round in Chemistry Metrology Olympiad
- Diamond League in Google Cloud Skills Boost
- Participant in Harvard Crimson Essay Competition
- Top Campus Ambassador at National Steam Olympiad

Rangpur, Bangladesh

Season 2022-23

Additional Learning Experience

Udacity

Online Program

AI Programming with Python Nanodegree (Full Scholarship Recipient)

July 2024 - August 2024

I completed this nanodegree where I developed an image classification model using PyTorch and fine-tuned a VGG16 network for accurate image recognition.

- Project 1: Dog Breed Classifier - Developed a model to classify dog breeds and predict human-dog resemblance using transfer learning.
- Project 1: Flower Image Classifier - Built a model to classify 102 flower species with high accuracy using PyTorch.

NASA Open Science Initiative

Online Program

September 2024 - Present

Contributing to NASA's open science projects, I analyzed astronomical data and applied scientific methods to real-world research in space exploration.

University of California, Berkeley

Online Program

Python4Physics Program

July 2024 - October 2024

In the Python4Physics Program, I applied my Python programming skills to simulate volcanic phenomena.

- Developed scientific models that combined data analysis with simulations, allowing me to explore the mechanics of Earth processes.
- Gained hands-on experience in scientific computation, enhancing my understanding of geophysical dynamics.

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Experience

AI Youth Alliance

CEO & Founder

Bangladesh

March 2024 - Present

- Founded a global initiative aimed at democratizing AI education, fostering innovation, and building a collaborative youth-driven AI community.
- Developed an accessible online learning platform tailored to provide inclusive AI education to underserved communities and aspiring professionals.
- Designed and launched the official **AI Youth Alliance website**, which serves as a hub for resources, workshops, and collaborative projects.
- Successfully hosted the **Google Duplex Workshop** on December 10, 2024, providing in-depth exploration of conversational AI technology and its practical applications.
- Established partnerships with leading organizations like IBM to scale the initiative globally and provide mentorship, tools, and support to youth.

National AI Olympiad

CEO & Founder

Bangladesh

May 2024 - Present

I organized a national competition designed to spark interest in AI among students. Seeing participants rise to the challenge and showcase their creativity has been incredibly rewarding.

- Provided mentorship and guidance throughout the competition, helping students cultivate valuable skills.
- Participated 1.4k students in this competition, more than 28 volunteers and more than 38 campus ambassadors
- Partnered with industry experts to create real-world challenges that encourage critical thinking.

Young Scientists Journal

Junior Editor - Computer Science

Remote

July 2024 - Present

As a Junior Editor, I review and edit research papers, ensuring clarity and integrity in the work of young scientists.

- Collaborated with a diverse team to promote scientific outreach.
- Nurtured young researchers' participation in the world of academic publishing.

WeSafe, Dhaka, Bangladesh

Research Assistant

Remote

May 2024 - Present

As a Research Assistant at WeSafe, I focus on addressing gender-based violence through research and advocacy.

- Conducting thorough literature reviews on gender-based violence opened my eyes to the urgent need for effective interventions.
- Designed surveys to gather crucial data, preparing reports for stakeholders.
- Contributed to meaningful discussions about policy change.

National STEM Olympiad

Campus Ambassador

Rangpur, Bangladesh

July 2023 - June 2024

As a Campus Ambassador for the National STEM Olympiad, I was passionate about inspiring students to explore the fields of science and technology.

- Actively promoted the Olympiad, encouraging participation and fostering a love for STEM among my peers.
- Organized outreach efforts to engage with schools, helping to raise awareness about the importance of STEM education.
- Developed valuable leadership and communication skills while contributing to the success of the event.
- Honored to be recognized as one of the top Campus Ambassadors in the country, I received compensation for my dedication and impact in promoting this important initiative.

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Extern

Remote

AI Market Research Extern

March 2024 - April 2024

Powered by National Research Group

During my time as an AI Market Research Extern, I delved into understanding consumer behavior and its implications for AI-driven strategies.

- Analyzed data to inform strategic decision-making, gaining valuable insights into market trends and consumer preferences.
- Contributed ideas that supported the development of innovative AI initiatives, enhancing my problem-solving skills and understanding of the tech landscape.

Extern

Remote

AI Risk Landscape Market Research Lab 4.0 Extern

June 2024-August 2024

Powered by National Research Group

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- Analyzed data to inform strategic decision-making, gaining valuable insights into market trends and consumer preferences.
- Contributed ideas that supported the development of innovative AI initiatives, enhancing my problem-solving skills and understanding of the tech landscape.

Ybi Foundation

Artificial Intelligence and Machine Learning Intern

January 2023

During my one-month internship at Ybi Foundation, I focused on Artificial Intelligence and Machine Learning.

- Implemented various machine learning algorithms, gaining practical insights into their applications.
- Collaborated with a team to develop AI solutions for real-world challenges.
- Enhanced my skills under the mentorship of industry professionals.

Connecting Dreams Foundation

Remote

Artificial Intelligence Intern

October 2023 - March 2024

I applied AI techniques to real-world social projects, developing machine learning models aimed at addressing sustainability challenges.

- Worked closely with mentors to refine models, gaining practical insights into ethical AI development.

Leadership & Activities

Cantonment Public School and College, Rangpur

Rangpur, Bangladesh

Class Captain

January 2023 - October 2024

Leading my class provided me with an opportunity to develop my leadership and organizational skills.

- Acted as the liaison between the teachers and students, ensuring smooth communication and a positive learning environment.
- Organized group study sessions, promoted collaboration, and helped address academic concerns.

Copernicus Astronomical Memorial of SUST

Remote

Special Member

March 2024 - Present

My passion for space exploration and cosmology led me to become a Special Member of this organization.

- Engaged in space exploration research, contributing to discussions about astronomy and cosmology.
- Collaborated with peers to explore new frontiers in scientific discovery.

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Buildspace

Builder
2024

Remote

June 2024 - September

Participating in Season 5 of Nights and Weekends at Buildspace was a transformative experience.

- Focused on AI projects, where I collaborated with fellow builders to develop innovative solutions.
- Engaged in intensive learning sessions, honing my technical skills and expanding my knowledge in AI.

Headstarter AI

Incoming Software Engineering Fellow

Online Program

July 2024 - September 2024

As an Incoming Software Engineering Fellow, I worked on several AI projects over a period of seven weeks.

- Contributed to open-source projects, building five AI models for real-world applications.
- Collaborated with the community to develop cutting-edge software solutions.

Bangladesh Scouts

Rover Scouts Member

Rangpur, Bangladesh

June 2023 - May 2024

As a Rover Scouts Member, I was actively involved in community service projects focused on safety and leadership.

- Involved in organizing fire safety awareness programs at local institutions, teaching participants how to respond to fire emergencies.
- Participated in the annual sports day, fostering teamwork and community spirit.

Your Big Year

Make an Impact Fellow

Remote

September 2023 - January 2024

As a Fellow in this global initiative, I focused on social innovation and sustainable development.

- Collaborated with experts and fellows to design and implement projects addressing real-world challenges.
- Developed initiatives promoting community empowerment, social justice, and sustainability.

Your Big Year

Young Innovators Think Tank Member

Remote

January 2024 - September 2024

Collaborating with talented individuals from across the globe, I brainstormed and developed innovative solutions.

- Focused on addressing pressing global issues in technology, sustainability, education, and healthcare.
- Designed initiatives that promote social justice and community empowerment.

3rd International Language League of the North South University

Campus Ambassador

Rangpur, Bangladesh

August 2023 - May 2024

As a Campus Ambassador, I was actively involved in promoting the 3rd International Language League and supporting its initiatives.

- Encouraged participation among students from various schools, helping them understand the competition's benefits and providing clear concepts and details about the event.
- Organized outreach efforts to engage schools and students, enhancing peer collaboration in language skills competitions.
- Played a key role in coordinating the divisional round at Shishu Niketan High School in Rangpur, contributing to the event's overall success while developing my leadership and communication skills.

Astronomy & Science Society of RUET (ASSR)

Campus Ambassador

Rangpur, Bangladesh

May 2023 - June 2023

As a Campus Ambassador, I had the opportunity to promote STEM education and ignite curiosity among my peers.

- Engaged in outreach efforts that encouraged students to explore the wonders of science and astronomy, fostering a culture of critical thinking and inquiry.
- Organized events and discussions that not only made science accessible but also inspired young minds to embrace the joys of learning.

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Volunteer Experience

Citizen Scientist, SSERD Asteroid Search Campaign

Remote

Space Science & Astronomy Research Organization (SSERD)

September 26 – October 21, 2024

Participated in the **International Astronomical Search Collaboration** to analyze images from the Pan-STARRS telescope, identifying and documenting near-Earth objects and Main Belt asteroids. Key contributions include:

- Collaborated with global teams on this NASA-supported initiative, gaining practical experience in planetary defense and data analysis.
- Recognized for valuable contributions, with findings supporting future research in space science.

Zooniverse

Remote

Beta Tester & Researcher

September 2023 - Present

As a Beta Tester and Researcher with Zooniverse, I actively contribute to citizen science projects that connect the public with scientific research.

- Focus on data analysis and image classification, playing a vital role in projects like **ReData**, where I help improve data quality and usability for researchers.
- Collaborate with a community of volunteers and scientists, contributing to various initiatives such as **Exoasteroids** and **Active Asteroids**, where my efforts aid in classifying celestial objects and identifying potential threats.
- Engage with diverse scientific inquiries, fostering curiosity about the universe while supporting impactful research.

NASA Exoplanet Watch

Remote

Citizen Scientist

September 2023 -Present

As a Citizen Scientist with NASA Exoplanet Watch, I analyze light curves from exoplanet transits, contributing to our understanding of distant worlds.

- Collaborate with NASA scientists on various exoplanets, including WASP-98 b, Qatar-2 b, Qatar-10 b, TrES-5 b, and WASP-12 b, enhancing research on their characteristics and behaviors.
- Engage in discussions about the implications of these exoplanetary discoveries, fostering a deeper understanding of their significance in the broader context of the universe.
- This hands-on experience has deepened my passion for space exploration and strengthened my commitment to advancing scientific knowledge.

TED Translators

Remote

Translator

February 2024 - Present

- Translated TED Talks from English to Bengali, making educational content accessible to a wider audience.
- Contributed to the global spread of knowledge, helping bridge language barriers in education.

UNESCO

Remote

U-Reporter

November 2022 - June 2023

As a U-Reporter with UNESCO, I participated in global youth advocacy projects focused on pressing issues.

- Contributed to discussions on education, equality, and sustainable development, amplifying the voices of young people in these critical conversations..

United Nations Volunteer (UNV) Bangladesh

Bangladesh

Volunteer

November 2023 - January 2024

In my role as a UN Volunteer, I supported the "Inclusive Youth Entrepreneurship" study.

- Engaged in data collection and outreach efforts to empower youth through education and entrepreneurship.
- Attended comprehensive online induction sessions, contributing to the UN's mission of fostering youth empowerment.

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Peer Reviewer Experience

AI and Ethics Journal (Springer Nature)

Reviewer

Remote

October 2024-Present

As a peer reviewer, I assess academic papers related to AI and ethics.

- Provide critical feedback to ensure the integrity of published research and that ethical considerations are integrated into AI studies.
- Contribute to the peer review process, supporting the advancement of ethical standards in artificial intelligence research.
- ISSN: 2730-5961

SKILLS

- **Programming Languages:** Python, R, SQL, PHP, HTML, CSS, Javascript
- **Data Analysis Tools:** Pandas, NumPy, Tableau, Power BI
- **Machine Learning:** Scikit-learn, TensorFlow, Keras
- **Statistical Analysis:** Hypothesis Testing, Regression Analysis, A/B Testing
- **Data Visualization:** Matplotlib, Seaborn, ggplot2
- **Soft Skills:** Problem Solving, Critical Thinking, Communication, Team Collaboration

Interests

- **Artificial Intelligence and Machine Learning**
- **Astronomy and Space Exploration**
- **Environmental Sustainability**

Languages

- **English:** Fluent
- **Bengali:** Native
- **Hindi:** Conversational (speaking and listening)

Hobbies

- **Reading:** Enjoy reading science fiction and non-fiction books related to technology and space.
- **Volunteering:** Actively participate in community service projects and youth advocacy initiatives.
- **Outdoor Activities:** Enjoy hiking and exploring nature, which inspires my interest in environmental science.
- **Gardening:** Enjoy nurturing plants and creating a sustainable garden space.
- **Movies and Web Series:** Passionate about exploring various genres, including science fiction, detective, and action-horror films.
- **Nature Photography:** Love capturing the beauty of the outdoors and documenting natural landscapes.
- **Cooking:** Enjoy experimenting with new recipes and cuisines, bringing creativity to the kitchen.