

Niloy Deb Barma

Rampara, NatuaMahol, Rajarhat, Shingerdabri-5610, Kurigram • Rangpur • academicniloydebbarma@gmail.com

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.

Niloy Deb Barma

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.

Niloy Deb Barma

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

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.

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.

Niloy Deb Barma

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.

Niloy Deb Barma

- Organized events and discussions that not only made science accessible but also inspired young minds to embrace the joys of learning.

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

Niloy Deb Barma

empowerment.

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.