

Shadab H. Choudhury

Ph.D. Student, CSEE • University of Maryland, Baltimore County (UMBC)

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in LinkedIn
🐙 GitHub

Research Interests

Accessibility, Explainable AI, Human-AI Collaboration, Multimodal Models

Education

University of Maryland, Baltimore County

Ph.D. in Computer Science (Incoming)

– Advisor: Dr. Lara J. Martin

Aug. 2026 – May 2030 (Expected)

Baltimore, Maryland

University of Maryland, Baltimore County

M.S. in Computer Science

– Advisor: Dr. Lara J. Martin

– Thesis: Connecting Language and Emotion for Human-AI Collaboration

Aug. 2023 – May 2025

Baltimore, Maryland

North South University

B.S. in Computer Science and Engineering

– Thesis: NAVI: Navigational Assistance for the Visually Impaired using Computer Vision

Aug. 2016 – Dec. 2020

Dhaka, Bangladesh

Research Experience

Graduate Research Assistant (Ph.D.)

University of Maryland, Baltimore County

Computer Science and Electrical Engineering (CSEE) Department

Aug. 2026 – Present

Baltimore, Maryland

Graduate Research Assistant (M.S.)

University of Maryland, Baltimore County

Computer Science and Electrical Engineering (CSEE) Department

Jan. 2024 – May 2025

Baltimore, Maryland

Research Assistant

BRAC University

Electrical and Electronics Engineering (EEE) Department

Sept. 2021 – Aug. 2023

Dhaka, Bangladesh

Selected Publications

*equal contribution, †presented

- [1] **S. H. Choudhury**[†]. “The Perceptual Gap: Why We Need Accessible XAI for Assistive Technologies”. In: Extended Abstracts of the 2026 CHI Conference on Human Factors in Computing Systems (CHI EA '26). Barcelona, Spain: ACM, Mar. 2026. arXiv: 2603.02486. URL: <https://doi.org/10.1145/3772363.3799105>.
- [2] **S. H. Choudhury**[†], A. Kumar, and L. J. Martin. “Evaluating Human-LLM Representation Alignment: A Case Study on Affective Sentence Generation for Augmentative and Alternative Communication”. In: Findings of the Association for Computational Linguistics: IJCNLP-AACL 2025. Mumbai, India, Dec. 2025, pp. 1618–1637. arXiv: 2503.11881. URL: <https://aclanthology.org/2025.findings-ijcnlp.100/>.
- [3] A. S. M. Mohsin* and **S. H. Choudhury***. “Quantifying Monomer–Dimer Distribution of Nanoparticles from Uncorrelated Optical Images Using Deep Learning”. In: ACS Omega (Jan. 2025). DOI: 10.1021/acsomega.4c07914. URL: <https://pubs.acs.org/doi/10.1021/acsomega.4c07914>. [Quartile: Q1, IF: 3.7].

- [4] A. S. M. Mohsin* and **S. H. Choudhury***. “Label-free quantification of gold nanoparticles at the single-cell level using a multi-column convolutional neural network (MC-CNN)”. en. In: Analyst 149.8 (Apr. 2024), pp. 2412–2419. ISSN: 1364-5528. DOI: [10.1039/D3AN01982A](https://doi.org/10.1039/D3AN01982A). URL: <https://pubs.rsc.org/en/content/articlelanding/2024/an/d3an01982a>. [Quartile: Q1, IF: 4.2].
- [5] I. J. Ananya, S. Suad, **S. H. Choudhury**[†], and M. A. Khan. “A Comparative Study on Approaches to Acoustic Scene Classification Using CNNs”. en. In: Advances in Computational Intelligence. Ed. by I. Batyrshin, A. Gelbukh, and G. Sidorov. Cham: Springer International Publishing, 2021, pp. 81–91. ISBN: 978-3-030-89817-5. DOI: [10.1007/978-3-030-89817-5_6](https://doi.org/10.1007/978-3-030-89817-5_6). URL: https://link.springer.com/chapter/10.1007/978-3-030-89817-5_6.

A full list of my publications is available on [Google Scholar](#).

Industry Experience

Senior Software Engineer

Nymph Solutions

Agentic AI • Computer-Use Agents • Domain-Specific Chatbots

Jan. 2026 – July 2026

Dhaka, Bangladesh

Python Developer

Dviz Technologies

Product Categorization using Tabular models and LLMs • Data Visualization Dashboards

Feb. 2023 – July 2023

Dhaka, Bangladesh

Machine Learning Engineer

Neovotech

Text-to-Image for Fashion • 3D Virtual Try-On • Multilingual Text-to-Speech

May 2022 – Feb. 2023

Dhaka, Bangladesh

Machine Learning Intern

Eucaps AB

Web Scraping • Summarization and Machine Translation

Feb. 2022 – May 2022

Stockholm, Sweden

Academic Experience

Graduate Teaching Assistant

University of Maryland, Baltimore County

CMSC341 (Data Structures)

Aug. 2023 – May 2025

Baltimore, Maryland

Orientation Advisor

University of Maryland, Baltimore County

Advising New and Transfer Students

May 2024 – Aug. 2024

Baltimore, Maryland

Marker

North South University

ENG102 (Introduction to Composition) • ENG105 (Advanced Composition)

Feb. 2020 – June 2020

Dhaka, Bangladesh

Grants and Awards

Scholarships and Grants

North South University

Merit Scholarship

Shadab H. Choudhury

2016 – 2020

50% Tuition Waiver

Dhaka, Bangladesh

Mediterranean Machine Learning Summer School

Travel Grant (Declined)

Shadab H. Choudhury

2023

€1,300

Thessaloniki, Greece

Other Awards

Best First Time Hackers

hackUMBC

Shadab H. Choudhury and Naren Sivakumar

2024

Baltimore, Maryland

Runners-Up, Wordsmiths 2018

North South University Department of English and Modern Languages

Shadab H. Choudhury

2018

Dhaka, Bangladesh

The Daily Star O- and A-Level Awards for Academic Excellence

The Daily Star Bangladesh

Shadab H. Choudhury

2015, 2017

Dhaka, Bangladesh

Skills

Programming Python, JavaScript, C++

Technologies Git, Docker, MySQL, MongoDB, ImageJ, Google Firebase, AWS EC2, Slurm

Libraries PyTorch, OpenCV, Pandas, NumPy, Librosa, FastAPI, Matplotlib, SciKit-learn, Django, Flask, Selenium, LangChain, LangGraph, RabbitMQ, Gradio, Scrapy, BeautifulSoup, ReactJS

Professional Activities

Reviewer

2025 AAAI/ACM Conference on AI, Ethics, and Society (AIES)

2025 5th Wordplay: When Language Meets Games Workshop at EMNLP 2025

Secondary Reviewer

2024 Annual Meeting of the Association for Computational Linguistics (ACL)

2024 4th Wordplay: When Language Meets Games Workshop at ACL 2024

Presentations and Talks

Water Analytics Tools: Quality and Quantity Monitoring Using IoT, ML & Nanotechnology

BRAC University – Dhaka, Bangladesh

2022

Workshop on Python by NSU ACM Student Chapter R&D

North South University – Dhaka, Bangladesh

2020

Volunteering

Mentor

DisabledinSTEM

2026 – 2027

Chapter Officer, Webmaster

NSU ACM Student Chapter

2019 – 2020

Dhaka, Bangladesh

Publications Team Lead

NSU ACM Student Chapter

2018 – 2019

Dhaka, Bangladesh