ANIRBAN SAHA ANIK

(940) 977 1183 — Denton, TX, USA

Homepage — AnirbanSahaAnik@my.unt.edu — LinkedIn — GitHub

RESEARCH INTERESTS

My research focuses on **Natural Language Processing (NLP)** and **Large Language Models (LLMs)**, with special interest in areas like retrieval-augmented generation (RAG), misinformation detection, and fact-grounded response generation. I aim to build context-aware, interpretable, and **Socially Responsible AI** systems that support critical domains such as public health and crisis communication. My long-term goal is to design adaptive, **Human-Aligned AI** models that improve communication, decision-making, and trust in real-world scenarios.

EDUCATION

University of North Texas (UNT)   **Denton, TX**
Master of Science, Data Science (GPA: 4.0/4.0)   *December 2025*
American International University-Bangladesh (AIUB)   **Dhaka, Bangladesh**
Bachelor of Science, Computer Science & Engineering (CGPA: 3.59/4.0)   *December 2021*

TECHNICAL SKILLS

NLP & LLMs: Transformers, Hugging Face, RAG, LoRA, RLHF
Languages & Libraries: Python, R, PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy
Data & Visualization: SQL, Tableau, Power BI, Matplotlib, Seaborn, Plotly
Tools & Platforms: Git, Jupyter, Linux, LaTeX

WORK EXPERIENCE

Data Insights Analyst (Internship)
SEES Group, Franklin, TN (Remote)   *Aug 2025 – Present*
- Supporting data insights and analytics projects with focus on data quality, reporting, and visualization.
- Building dashboards and reports in Power BI, leveraging Microsoft Fabric for data integration and analytics.
- Collaborating with cross-functional teams to optimize workflows and ensure data integrity.

Graduate Research & Teaching Assistant
University of North Texas   *Aug 2024 – Aug 2025*
- Conducting interdisciplinary research on LLMs, misinformation, and responsible AI under *Dr. Lingzi Hong*.
- Assisting in teaching *Data Visualization and Communication* and *Introduction to Data Science* courses.
- Guided students in Python, R, Tableau, Power BI, and SQL; graded assignments; and provided academic support.
- Contributing to research publications, evaluation studies, and mentoring undergraduate students.

Research & Teaching Assistant
American International University-Bangladesh (AIUB)   *Sep 2021 – Dec 2022*
- Conducted medical data analysis using deep learning for disease detection under *Md. Kishor Morol*.
- Mentored undergraduate students in research methodology, technical writing, and database design.
- Assisted in *Introduction to Database* course focusing on SQL and relational schema design.

Intern – Enterprise Applications (Microfinance)
BRAC, Dhaka, Bangladesh   *Mar 2022 – May 2022*
- Performed UAT testing and software QA for microfinance enterprise applications.
- Gathered feedback from 5+ branches to improve user experience and documented system requirements.
- Proposed interface and process improvements to streamline workflow efficiency.

PUBLICATIONS

- **A. S. Anik**, X. Song, E. Wang, B. Wang, B. Yarimbas, L. Hong. Multi-Agent Retrieval-Augmented Framework for Evidence-Based Counterspeech Against Health Misinformation. *Conference on Language Modeling (COLM 2025)*. arXiv.2507.07307 (Accepted)

- X. Song, **A. S. Anik**, E. Blanco, V. Frías-Martínez, L. Hong. A Dynamic Fusion Model for Consistent Crisis Response. *Conference on Empirical Methods in Natural Language Processing (EMNLP 2025 Findings)*, (Accepted)

- X. Song, **A. S. Anik**, D. Barua, P. Luo, J. Ding, L. Hong. Speaking at the Right Level: Literacy-Controlled Counterspeech Generation with RAG-RL. *Conference on Empirical Methods in Natural Language Processing (EMNLP 2025 Findings)*, (Accepted)

- **A. S. Anik**, M. F. K. Chowdhury, A. Wyckoff, Sagnik Ray Choudhury. ClaimIQ at CheckThat! 2025: Comparing Prompted and Fine-Tuned Language Models for Verifying Numerical Claims. *Conference and Labs of the Evaluation Forum (CLEF 2025)*, (Notebook Paper, Accepted)

- X. Song, **A. S. Anik**, V. Frías-Martínez, L. Hong. Dynamic Fusion of Large Language Models for Crisis Communication. *International Conference on Information Systems for Crisis Response and Management (ISCRAM)*, 2025. DOI: 10.59297/nqysjq45

- M. Arman, N. Prottush, M. A. Rusho, A. Datta, **A. S. Anik**, D. M. Dohan, M. A. U. I. Sajid, I. A. Sheikh, M. K. Jahna. A Hybrid Attention-Guided Fusion Network with Grad-CAM for MPox Skin Lesion Classification. *4th International Conference on Computing and Machine Intelligence (ICMI)*, 2025. (Accepted)

- S. S. Das, **A. S. Anik**, M. K. Morol, M. S. Mahmood. Outcome-Based Education: Evaluating Students' Perspectives Using Transformer. *27th International Conference on Computer and Information Technology (ICCIT)*, 2024. DOI: 10.1109/ICCIT64611.2024.11021724

- S. S. Das, **A. S. Anik**, M. M. Hossain, M. K. Morol, F. Jahan, M. A.-A. Jubair. A Study on Future Lockdown Predictions Using ANN. *International Conference on Next-Generation Computing, IoT and Machine Learning (NCIM)*, 2023. DOI: 10.1109/NCIM59001.2023.10212686

- **A. S. Anik**, K. Chakraborty, B. Datta, A. Kader, M. K. Morol. A Comparative Analysis for the Detection of COVID-19 from Chest X-ray Dataset. *International Conference on Recent Progresses in Science, Engineering and Technology (ICRPSET)*, 2022. DOI: 10.1109/ICRPSET57982.2022.10188570

ACADEMIC PROJECTS

- **Enhancing Early Alzheimer's Detection through Deep Learning and Explainable AI using fMRI Scans**
  Designed a 3D CNN with temporal feature fusion to classify Alzheimer's stages from fMRI scans. Used Grad-CAM to highlight key brain regions. Slide

- **LibraMate: Your Personal Library Assistant Chatbot**
  Built a GPT-4 powered chatbot using Streamlit and MySQL to support book search, room booking, and event queries. Focused on secure NLP workflows and user-friendly design. Report

- **College Student Mental Health Prediction Using Machine Learning**
  Compared ML algorithms for detecting depression and anxiety symptoms. Built models using Scikit-learn with visualization support in Matplotlib and Seaborn. Slides

AWARDS AND HONORS

- **1st Place - Day of Health Informatics and Data Science (Poster Presentation)**, University of North Texas
  Recognized for research on: *"Enhancing Health Communication: Developing LLM-based Models to Generate Effective Counter-Speech Against Health Misinformation."* This work was conducted as part of the **UNT AI/CS Summer Research Program**.