

ANIRBAN SAHA ANIK

NLP & Generative AI Researcher | LLMs | RAG | Knowledge Graphs

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[Portfolio](#) | [LinkedIn](#) | [GitHub](#) | [Google Scholar](#)

SUMMARY

Computer Science Ph.D. student and NLP/Generative AI researcher specializing in large language models (LLMs), retrieval-augmented generation (RAG), knowledge graphs, controllable generation, and LLM evaluation. Experience building evidence-grounded and multi-agent AI systems, conducting large-scale model evaluation, and translating research into practical AI solutions.

TECHNICAL SKILLS

NLP & Generative AI: Large Language Models (LLMs), RAG, GraphRAG, Multi-Agent Systems, Prompt Engineering, LoRA/PEFT, LLM Evaluation

Retrieval & Knowledge Systems: Knowledge Graphs, FAISS, Neo4j, Entity & Relation Extraction, Evidence Grounding

ML & Data: PyTorch, Hugging Face Transformers, scikit-learn, TensorFlow, Pandas, NumPy

Programming & Infrastructure: Python, SQL, R, vLLM, Docker, Linux, Git, Microsoft Fabric

RESEARCH EXPERIENCE

Graduate Research Assistant - NLP / LLMs

University of North Texas | Advisor: [Lingzi Hong](#)

May 2024 – Present

- Developed RAG, knowledge-graph, and multi-agent LLM systems for evidence-grounded health communication and misinformation response, contributing to peer-reviewed work at COLM, EMNLP, and CLEF.
- Designed controllable generation methods that adapt explanation depth and readability to different user knowledge levels while preserving factual grounding.
- Built automated and human evaluation pipelines for factuality, retrieval quality, controllability, and response quality across multiple open-weight LLMs.
- Developed multi-turn LLM frameworks and diagnostic benchmarks for reasoning, decision-making, and response generation in health and crisis communication.

Research Assistant

American International University-Bangladesh | Advisor: [Md. Kishor Morol](#)

May 2022 – Dec 2022

- Conducted medical data analysis using deep learning for disease detection, contributing to 3 publications on COVID-19 detection, educational assessment, and pandemic prediction.
- Mentored undergraduate students in research methodology, experimental design, and technical writing for conference submissions.

INDUSTRY EXPERIENCE

Data Insights Analyst Intern

SEES Group, Franklin, TN

Aug 2025 – Dec 2025

- Built data engineering and analytics pipelines in Microsoft Fabric for enterprise data integration and transformation.
- Implemented data governance, compliance, and security protocols to ensure data integrity and regulatory adherence.

Enterprise Applications Intern

BRAC, Dhaka, Bangladesh

Mar 2022 – May 2022

- Performed User Acceptance Testing (UAT) for microfinance applications and developed an automation tool to streamline workflow processes.
- Gathered field feedback from branch users and officers, translating usability findings into documented software improvement recommendations.

EDUCATION

University of North Texas

Ph.D. in Computer Science and Engineering, GPA: 4.0/4.0

Denton, TX

Jan 2026 – Present

University of North Texas

M.S. in Data Science, GPA: 4.0/4.0

Denton, TX

Dec 2025

American International University-Bangladesh (AIUB)

B.S. in Computer Science and Engineering, CGPA: 3.59/4.0

Dhaka, Bangladesh

Dec 2021

CERTIFICATION

Microsoft Certified: Fabric Data Engineer Associate - Microsoft, Jul 2026

[\[Verify Credential\]](#)

SELECTED PEER-REVIEWED PUBLICATIONS

- X. Song, **Anirban Saha Anik**, J. Liu, Q. Tan, G. Yuan, L. Hong. Ask or Answer: A Decision Framework for Multi-Turn Health Misinformation Intervention. **EMNLP 2026**. [\[link\]](#)
- **Anirban Saha Anik**, X. Song, E. Wang, B. Wang, B. Yarimbaz, L. Hong. Multi-Agent Retrieval-Augmented Framework for Evidence-Based Counterspeech Against Health Misinformation. **COLM 2025**. [\[link\]](#) (*Runner-Up, SIG-SM 2025*)
- X. Song, **Anirban Saha Anik**, D. Barua, P. Luo, J. Ding, L. Hong. Speaking at the Right Level: Literacy-Controlled Counterspeech Generation with RAG-RL. **EMNLP 2025**. [\[link\]](#) (*Honorable Mention, SIG-SM 2025*)
- X. Song, **Anirban Saha Anik**, E. Blanco, V. Frías-Martínez, L. Hong. A Dynamic Fusion Model for Consistent Crisis Response. **EMNLP 2025**. [\[link\]](#)
- D. Zhang, X. Song, M. Rashid, **Anirban Saha Anik**, J. Ding, L. Hong. VeriFind at CheckThat! 2026: Enhancing Numerical Claim Verification via Fine-Tuned LLMs. **CLEF 2026**. (*2nd Place, CheckThat! Lab 2026*)
- F. S. Hasan, **Anirban Saha Anik**, E. Liu, X. Song, M. Rashid, L. Hong. SourceMinds at CheckThat! 2026: NLI-Grounded Citation Auditing in a Multi-Agent Pipeline for Full Fact-Checking Article Generation. **CLEF 2026**. [\[link\]](#)
- M. Rashid, N. Baniya, **Anirban Saha Anik**, X. Song, L. Hong. SciClaimSeekers at CheckThat! 2026: Retrieving Scientific Sources for Social Media Claims with LLM Reranking. **CLEF 2026**. [\[link\]](#)
- **Anirban Saha Anik**, M. F. K. Chowdhury, A. Wyckoff, S. Ray Choudhury. ClaimIQ at CheckThat! 2025: Comparing Prompted and Fine-Tuned Language Models for Verifying Numerical Claims. **CLEF 2025**. [\[link\]](#)
- X. Song, **Anirban Saha Anik**, V. Frías-Martínez, L. Hong. Dynamic Fusion of Large Language Models for Crisis Communication. **ISCRAM 2025**. [\[link\]](#)

MANUSCRIPTS UNDER REVIEW

- **Anirban Saha Anik**, X. Song, S. Kanuganti, J. Yuan, S. Fu, L. Hong. Granularity-Aligned Health Misinformation Refutation with Knowledge Graphs. *Under Review, ACL ARR*.
- **Anirban Saha Anik**, X. Song, J. Liu, Q. Tan, G. Yuan, S. Fu, E. Blanco, L. Hong. Towards Human-Centered Natural Language Processing: A Survey of Cognitive Signal Integration. *Under Review, ACL ARR*.
- D. T. B. Ngan, N. Rayabarapu, X. Song, **Anirban Saha Anik**, et al. ST-Crisis: A Diagnostic Benchmark for Spatiotemporal Grounding in Crisis Communication. *Under Review, ACL ARR*.

AWARDS & PROFESSIONAL SERVICE

Awards: 2nd Place, CheckThat! Lab 2026; Sinha Scholars Scholarship (UNT, 2025); Runner-Up & Honorable Mention, SIG-SM Social Media Research Competition 2025; 1st Place, Health Informatics & Data Science Day Poster; TGS Summer Award (UNT, Summer 2025).

Service: Program Committee Member - CLEF 2026 CheckThat! Lab; The 2nd Workshop on LLM Agents for Social Simulation (CIKM 2026); Conference Reviewer - JCDL, CLEF 2025, CLEF 2026; Journal Reviewer - Aslib Journal of Information Management; Graduate Teaching Assistant - Data Science & Data Visualization, UNT (Aug 2024 – May 2025).