

Mainuddin Shaik, Ph.D.

Interim Department Chair | Assistant Professor | Program Coordinator | Researcher

Sul Ross State University, Texas

mainuddin.shaik@sulross.edu

[Google Scholar](#) · [LinkedIn](#)

EDUCATION

- Dec 2024 **Ph.D., Computer and Information Science**
University of Arkansas at Little Rock, **U.S.A.**
Dissertation: Role of Multimedia and Conative Words in Online Socio-Political Mobilization.
- May 2016 **M.S., Information Quality**
University of Arkansas at Little Rock, **U.S.A.**
- Jun 2012 **M.S., Electrical and Electronic Engineering**
Edinburgh Napier University, Scotland, **U.K.**
- Jun 2010 **B.Tech., Electrical and Electronic Engineering**
Chirala Engineering College, JNTU Kakinada, Andhra Pradesh, **India**

RESEARCH INTERESTS

- Cybersecurity and disinformation detection.
- Artificial intelligence, machine learning, and natural language processing.
- Social computing and online information operations.
- Multimodal data analytics and social network analysis.
- Critical infrastructure and cyber-physical systems security.

PROFESSIONAL EXPERIENCE

Sul Ross State University, Texas

- Jun 2026–Present **Interim Department Chair, Natural & Behavioral Sciences**
- Provide interim academic and administrative leadership for departmental operations, planning, and collaboration.
 - Support faculty success, student engagement, scheduling, and organizational continuity.
 - Advance process improvement and student-centered academic development.
- Apr 2026–Present **Program Coordinator, Computer Science**
- Coordinate program planning, course offerings, assessment, and curriculum support.
 - Support advising, continuous improvement, and program development.
 - Align academic planning with institutional priorities and workforce needs.
- Jan 2026–Present **Researcher, DOE Midstream Critical Manufacturing Industry Cybersecurity Hub**
- Contribute to cybersecurity research on critical infrastructure and cyber-physical systems.
 - Support interdisciplinary grant activity, technical analysis, and research translation.
- May 2025–Present **Assistant Professor of Computer Science and Cybersecurity**
- Teach cybersecurity and computing courses and mentor students.
 - Lead curriculum development and modernization.
 - Contribute to interdisciplinary program expansion.
 - Participate in departmental committees, academic planning, and student engagement initiatives.

University of Arkansas at Little Rock, Little Rock, Arkansas

Aug 2019–Dec 2024 **Graduate Research Assistant**

- Developed ML models to analyze digital engagement and predict influence patterns.
- Evaluated LLMs and semantic search methods for advanced AI applications.
- Created AI-driven models to detect misinformation in Taiwan's 2024 elections.
- Taught Social Computing (IFSC 4360/5360) in Spring 2021, Spring 2022, and Fall 2022.
- Used NLP models (BERT, LDA) and toxicity analysis (Perspective API) in disinformation research.
- Led multi-platform information campaign research funded by defense agencies across the US, Europe, and Australia.
- Achieved 85% accuracy in identifying coordinated inauthentic behavior; 90% in misinformation categorization.
- Designed cross-media information diffusion models using graph theory and community detection algorithms.
- Mentored graduate and undergraduate students; two mentees co-authored conference papers.
- Achieved 95% positive feedback in teaching evaluations.

HPE / DXC Technologies, El Paso, Texas

Jun 2016–Jun 2019 **Business Analyst and Project Estimate Coordinator**

- Provided business analysis for software enhancement projects for major airline clients.
- Built and optimized SQL-driven BI reporting solutions.
- Automated ETL workflows, improving data extraction efficiency by 40%.
- Led data modeling and SQL query performance improvement initiatives.

University of Arkansas at Little Rock, Little Rock, Arkansas

Jan 2015–May 2016 **Graduate Research Assistant**

- Prepared workflow scenarios and conducted gap analysis.
- Crawled and extracted unstructured data from blog sources.
- Created tables, stored procedures, SQL scripts, and data quality scoring approaches.

RESEARCH AND OTHER FUNDING / GRANTS

Jan 2026–Present **DOE Midstream Critical Manufacturing Industry Cybersecurity Hub**

Role: Researcher

Focused on cybersecurity for critical infrastructure and cyber-physical systems.

AWARDS & HONORS

- 2025 Nominated for Best Paper Award at HICSS-58.
- 2024 DCSTEM Student Travel Awards for AMCIS 2024 and HICSS 2024.
- 2024 Outstanding COSMOS Lab Research Award (May 2024).
- 2023, 2024 Student Travel Awards for SBP-BRiMS 2023 and SBP-BRiMS 2024.
- 2023 Student Research and Creative Works Award, 2nd Place (April 28, 2023).
- 2023 Donaghey College of Science, Technology, Engineering and Mathematics Dean's Elevator Speech Award (April 28, 2023).
- 2021 Best Paper Award, SOTICS 2021.

PUBLICATIONS

Journal Articles

[J1] Shaik, Mainuddin, and Agarwal, N. (2024). A computational analysis of online political discourse on the Ukrainian-Russian blogosphere. *International Journal on Advances in Software*, 17(3–4).

Conference Proceedings

★ [C1] Shaik, Mainuddin, and Agarwal, N. (2025). Analyzing TikTok's role in mobilizing dynamics for information campaigns during Taiwan's 2024 elections. In *Proceedings of the 58th Hawaii International Conference on System Sciences*.

[C2] Shaik, Mainuddin, Cakmak, M. C., Spann, B., and Agarwal, N. (2024). Characterizing multimedia adoption and its role on mobilization in social movements. In *Proceedings of the 57th Hawaii International Conference on System Sciences*.

[C3] Shaik, Mainuddin, Yousefi, N., and Agarwal, N. (2024). Role of co-occurring words on mobilization in Brazilian social movements. In *Proceedings of the 30th Americas Conference on Information Systems*.

[C4] Shaik, Mainuddin, Yousefi, N., Agarwal, N., and Spann, B. (2024). Evaluating role of Instagram's multimedia in connective action leveraging diffusion of innovation and cognitive mobilization theories: Brazilian and Peruvian social unrest case. In *Proceedings of the 2023 10th International Conference on Behavioural and Social Computing*.

★ [C5] Shaik, Mainuddin, Hussain, M. N., Stine, Z., and Agarwal, N. (2021). Developing situational awareness from blogosphere: An Australian case study. In *Proceedings of the Eleventh International Conference on Social Media Technologies*.

[C6] Cakmak, M. C., Shaik, Mainuddin, and Agarwal, N. (2024). Emotion assessment of YouTube videos using color theory. In *Proceedings of the 2024 9th International Conference on Multimedia and Image Processing*.

[C7] Yousefi, N., Shaik, Mainuddin, and Agarwal, N. (2024). Characterizing multimedia information environment through multi-modal clustering of YouTube videos. *arXiv preprint arXiv:2402.18702*.

[C8] Khaund, T., Shaik, Mainuddin, and Agarwal, N. (2021). Data collection and sensemaking from Telegram: A case study of Ukrainian political leaders' channels and chat groups.

[C9] Onyepunuka, U., Marcoux, T., Shaik, Mainuddin, Gurung, I., and Agarwal, N. (2022). A multidimensional analysis of YouTube communities in the Indo-Pacific region. In *The Twelfth International Conference on Social Media Technologies, Communication, and Informatics*.

[C10] Adeliyi, O., Adesoba, A., Shaik, Mainuddin, and Agarwal, N. (2022). A multi-method approach to analyze Australia-China geopolitical discourse on YouTube. *OSF*.

★ *Nominated for / recipient of a Best Paper Award.*

Books & Book Chapters

[B1] Akinnubi, A., Agarwal, N., Shaik, Mainuddin, Okeke, V., and Sunmola, A. (2023). Powering blogosphere analytics with BlogTracker: COVID-19 case study. In *Cyber Security and Social Media Applications* (pp. 1–27).

[B2] Khaund, N. A. T., Hussain, M. N., and Shaik, Mainuddin. (2021). Telegram: Data collection, opportunities, and challenges. *Springer International Publishing*.

PROFESSIONAL ACTIVITIES

Conference Reviewing

Reviewer, HICSS (2024, 2025)

Reviewer, SBP-BRiMS (2022, 2023, 2024)

Reviewer, ASONAM (2023)

Reviewer, CySoc (2023, 2024)

Reviewer, SNAM (2024)

Multi-session moderator, 30th Americas Conference on Information Systems, Salt Lake City, Utah, August 2024

INVITED TALKS AND PANELS / TUTORIALS & POSTERS

Invited Talks

Sep 21, 2023 Social Computing and the State of Research on Social Media, Computer and Information Science Department, University of Arkansas at Little Rock.

Aug 17, 2023 New International Graduate Students Orientation, University of Arkansas at Little Rock.

Tutorials and Poster Presentations

Sep 26–28, 2024 COSMOS Social Media Analysis Training, tutorial on data collection and collective action research projects.

- Jul 2023 Tutorial on Social Network Analysis for WVAR-CRESH Summer School on AI and Smart Health, West Virginia University.
- 2023, 2024 Poster presentations at SBP-BRiMS 2023 and SBP-BRiMS 2024 on multimedia roles in social movements and collective action.

OUTREACH AND MENTORING STUDENTS

Adeola Adesoba, M.S. in Information Quality, Fall 2021

Ugochukwu Onyepunuka, M.S. in Information Science, Spring 2023

Ivory Okeke, M.S. in Business Information Systems and Analytics, Spring 2023

Connice Trimmingham, M.S. in Computer Science, Fall 2022

Ifeanyi Joshua Umoga, M.S. in Information Science, Spring 2023

Served as peer mentor at UALR, 2023–2024, assisting graduate students in coursework navigation and degree completion.

TECHNICAL COMPETENCIES

Programming & data: Python, SQL, MySQL, ETL, data analytics

Research methods: NLP, topic modeling, named entity recognition, emotion detection, sentiment analysis, multimodal analytics, network analysis, clustering

Tools & platforms: Tableau, Gephi, ORA, NetworkX, Blackboard, Canvas, LaTeX