Kazi Noshin

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Research Interest

Human-Computer Interaction (HCI) – Information, Communication Technologies, and Development (ICTD) – Computer-Supported Cooperative Work (CSCW) – Human-AI Interaction (HAI) – Human-centered ML Design – Responsible AI – Computational Social Science – Social Computing

Education

University of Virginia *Charlottesville, VA, USA*
M.S. in Computer Science *August 2023 – December 2025*
- Current GPA: 4.00/4.00

Bangladesh University of Engineering and Technology (BUET) *Dhaka, Bangladesh*
Bachelor of Science in Computer Science and Engineering *Feb 2017 – May 2022*
- CGPA: 3.68/4.00
- Last two-year CGPA: 3.84/4.00

Publications

AI Sycophancy: How Users Flag and Respond (Currently Under Review, Submitted to FAccT 2026)
Authors: **Kazi Noshin**, Syed Ishtiaque Ahmed, Sharifa Sultana
- In this study, we investigate how users detect sycophancy and respond to the sycophantic behaviour of ChatGPT by analyzing Reddit data.

IRIS: Interpretable Risk Clustering Intelligence for Survival Analysis (2025 IEEE International Conference on Big Data) [Link]
Authors: **Kazi Noshin***, Bojian Hou*, Mary Regina Boland, Zixuan Wen, Boning Tong, Li Shen, Aidong Zhang
- This study introduces IRIS, a novel framework that enhances risk clustering and interpretability in survival analysis.
- It demonstrates superior risk stratification across benchmark and real-world datasets, including Alzheimer's disease and EHR data.

Uncovering Important Diagnostic Features for Alzheimer's, Parkinson's and Other Dementias Using Interpretable Association Mining Methods (Biocomputing 2025: Proceedings of the Pacific Symposium) [Link]
Authors: **Kazi Noshin***, Mary Regina Boland*, Bojian Hou, Victoria Lu, Carol Manning, Li Shen, Aidong Zhang *2024*
- This study leverages Electronic Health Records (EHR) to identify important predictive features for Alzheimer's Disease and Related Dementia (ADRD) using various Machine Learning methods.

AI-Enabled Parkinson's Disease Screening Using Smile Videos (NEJM AI 2025) [Link]
Authors: Tariq Adnan, Md Saiful Islam, Sangwu Lee, EM Wasifur Rahman Chowdhury, Sutapa Dey Tithi, **Kazi Noshin**, Md Rayhanul Islam, Imran Sarker, M Saifur Rahman, Ruth B Schneider, Jamie L Adams, E Ray Dorsey, Ehsan Hoque
- This study presents an AI-driven method for screening Parkinson's disease by analyzing facial expression videos, specifically focusing on smiles.
- It demonstrates high accuracy and generalizability across different populations using ML models trained on facial features, suggesting a scalable and accessible tool for PD screening when clinical access is limited.

Integrating Social Determinants of Health in a Multi-Modal Deep Clustering Survival Model for Injury-Risk in Alzheimer's and Related Dementia Patients (AI for Medicine and Healthcare: AAAI Bridge Program) [Link]
Authors: **Kazi Noshin***, Mary Regina Boland*, Bojian Hou, Weiqing He, Victoria Lu, Carol Manning, Li Shen, Aidong Zhang *2024*
- This study shows that SDOH improves the clustering performance survival models.
- It finds that education is a key SDOH factor, underscoring its significance in Alzheimer's Disease progression.

Research Experience

Autism Caregiving Strategies: Informal Knowledge and Experience Shared on Reddit (Manuscript under processing) *June 2025 - Present*
Mentor: Dr. Sharifa Sultana (Assistant Professor, UIUC)
Collaborator: Dr. Karrie Karahalios (Professor, UIUC)
- Employing Statistical and Thematic Analysis to examine the strategies caregivers follow to address the challenges faced by children with autism.

Why is It Funny?: Contrasting Human and LLM Reasonings in Understanding Internet Memes (Manuscript under processing)

June 2025 - Present

Mentor: Dr. Syed Ishtiaque Ahmed (Associate Professor, UofT)

- In this study, we compare how humans LLMs interpret humor in English and Bengali memes using quantitative and qualitative analyses.
- Using the Meaning Framework and Humor Transaction Schema, we identify cognitive and cultural gaps in their humor comprehension.

Alzheimer's Disease Prediction with Deep Learning approaches (MS Thesis) (Link)

(Graduate Research Assistant at University of Virginia) *August 2023 - May 2025*

Supervisor: Dr. Aidong Zhang (Professor, University of Virginia)

External Collaborators: Dr. Li Shen (Professor, University of Pennsylvania), Dr. Mary Regina Boland (Assistant Professor, Saint Vincent College, USA)

Earthquake Early Warning System using Graph Neural Network

(Research Assistant at BUET-Japan Institute of Disaster Prevention and Urban Safety) *July 2022 - Jan 2023*

Supervisor: Dr. Mohammed Eunus Ali (Professor, BUET)

Automated Analysis of Parkinson's Disease (PD) Characteristics and Severity Based on Videos Collected via a Web-based Platform (B.Sc. Thesis) (PDF)

2021 - 2022

Supervisor: Dr. Mohammad Saifur Rahman (Professor, BUET)

External Collaborators: Dr. Ehsan Hoque (University of Rochester), Dr. Imran Sarker (NINH, BD)

Actionable Analytics of Cancer

2021-2023

Supervisor: Dr. Mohammad Saifur Rahman (Professor, BUET)

External Collaborator: Dr. Abu Zafer Mohammed Dayem Ullah (Barts Cancer Institute, UK)

- Identifying the association of various clinical or molecular factors with the survival of patients diagnosed with cancers.

Teaching Experience

Universiy of Virginia
Charlottesville, VA, USA

Teaching Assistant *July 2025 - December 2025*

- **Courses Assisted**:
    - CS 6205: Research Methods in Human-Computer Interaction (Fall 2025)
    - CS 4501: Human-Centered Computing for Digital Well-Being (Summer 2025)
    - CS 6316: Machine Learning (Fall 2024)
- **Responsibilities**:
    - Grading assignments and provided feedback.
    - Leading weekly office hours and supported students on Piazza.

University of Asia Pacific
Dhaka, Bangladesh

Lecturer (Full-time) *Aug 2022 - June 2023*

- **Courses Taught**:
    - Introduction to CS and Programming Methodology • Structured Programming (C) • Data Structures • Software Development
- **Responsibilities**:
    - Efficient planning of assignments to enhance the student's ability to understand computer basics.

Notable Projects

Webfitt Study

HCI Project (Github link) *2023*

- In this study, we conducted a within-subject experiment with four participants using the Webfitt platform and analyzed the collected data to draw quantitative and qualitative insights.
- Language: Python

SHIKHON - The Admission Helper

Software Development Project (Github link) *2021*

- The targeted users of the platform is University Admission Candidates and the purpose of the application is to provide tutorials, notes, and solutions about a particular topic of a particular subject. The main challenge of this project is to learn how to build an interactive live application.
- Language : Javascript, Library : NodeJS, Database : MongoDB, Frontend : React Native JS

Skills

Programming	Python, R, C/C++, Javascript
Frameworks	PyTorch, Keras, React-Native
Tools/Software	Git, GitHub Actions, Hugging Face, Microsoft Word, PowerPoint, Excel, MATLAB, Latex

References

Sharifa Sultana	Assistant Professor, Computer Science, University of Illinois Urbana-Champaign, USA, email: sharifas@illinois.edu
Syed Ishtiaque Ahmed	Associate Professor, Department of Computer Science, University of Toronto, email: ishtiaque@cs.toronto.edu