

Tasmia Shahriar

HCI | Generative AI | Data Mining | Intelligent Tutoring Systems

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in [tasmia-shahriar](#) | 🌐 [TasmiaShahriar](#) | 📄 <https://tasmia Shahriar.github.io>

EDUCATION

North Carolina State University PhD in Computer Science

Aug 2024 | AI in Education

MSc in Computer Science

Aug 2023 | CGPA 3.73/4

Courses: Automated Learning and Data Analytics, Natural Language Processing, Artificial Intelligence, Advanced topics in Machine Learning, Algorithms, Research Design, Statistics

SKILLS

OVER 100000 LINES OF CODE

Java • Python • R • C++ • SQL

LIBRARIES AND FRAMEWORK

Pytorch • CUDA • OpenAI • Scikit-learn • NumPy • Pandas • nltk • spacy • Tensorflow • SciPy

OTHER TOOLS

Git • Jupyter • Shell • Microsoft Excel • Google Sheets

RESEARCH METHODS

Contextual Inquiry • Survey design • A/B testing • Think-aloud study • Prototyping • Wizard of Oz study.

AREA OF EXPERTISE

Statistical Analysis

Generative AI

Data Mining

Deep Learning

EXTRA CURRICULAR

Program Committee Member, AIED conference, 2023 and 2024.

National Hackathon Champion, ICT Department, Bangladesh, 2016.

Champion in Mind Spark Business Case Competition, BUET, Bangladesh, 2017

WORK EXPERIENCE

Graduate Research Assistant

Aug 2019 – Aug 2024 | North Carolina State University

- Published 4 first authored papers. See [Google Scholar](#).
- Collaborated with over 300 middle school students and 20 in-service teachers for data collection via surveys, A/B experiments, and think-aloud studies.

Graduate Teaching Assistant

Aug 2018 – Aug 2019 | North Carolina State University

- Managed 120 students for HCI, Discrete Mathematics and Computer Organization and Assembly Language course
- Developed assignments and examination rubrics.
- Facilitated student inquiries through Moodle and Piazza.

Software Engineer

Feb 2017 – June 2018 | Infosapex Ltd | Bangladesh

- Collaborated with end users for prototyping.
- Fullstack agile development and deployment of 2 websites including e-commerce and process automation.
- Designed AR-based Android app for e-commerce website.

PROJECTS

Modeling Conversational Questions to Enhance Learning

Research | IEC Lab | NCSU | 2020-2024

- Used OpenAI Large Language Model with chain-of-thought prompting to generate context-aware questions, improving learning outcomes by 13% and reducing hallucinations by 15%. See [Google Scholar](#)

Metadata Extraction from Educational Videos

Research | LearnLab | CMU | 2023

- Extracted features from educational YouTube videos (e.g., questions, contexts, solutions, off-topic elements) using LangChain ([github](#))

Intrusion Detection in Network Flow Data

Course Project | Automated Learning and Data Analytics | NCSU | 2023

- Used Scikit-learn package for data preprocessing and utilized Principal Component Analysis and Information Gain for feature engineering.
- Developed a multitask deep neural network using keras and Tensorflow, achieving a 98.87% accuracy. ([github](#))

Itinerary Summarization with Temporal Information from Travelers' Blog

Course Project | Natural Language Processing | NCSU | 2023

- Location-based clustering using nltk and spacy, integrating event extraction and dependency parsing, to sequence places in travelers' blog posts.
- Achieved a 60.4% BLEU score; (baseline 48.5%) ([github](#))