AMANUL HAQUE

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OVERVIEW

Al Researcher with a strong foundation in generative AI, including Large Language Models (LLMs), word embeddings, and agentic workflows. Passionate about developing scalable and explainable AI solutions for real-world problems. Published in leading venues including ACL, AAMAS, IEEE-TCSS, and AI & Society. Visit my Google Scholar or my Webpage for more details.

EDUCATION

Doctor of Philosophy (PhD) in Computer Science

• CGPA - **4.0/4**

March 2025

North Carolina State University, Raleigh, NC (Advised by: Distinguished Professor Munindar P. Singh)

Focused on Social Simulations, Deep Learning, and Generative AI (LLMs) approaches for NLP

Master of Science in Computer Science

• CGPA - 4.0/4

May 2019

North Carolina State University, Raleigh, NC

Bachelor of Engineering in Information Science

• CGPA - 8.76/10

May 2015

PES University, Bangalore, India

AWARDS AND HONORS

Graduate Student Leadership Award 2023

Outstanding Teaching Assistant Award 2021

Awarded by NC State University

Awarded by NC State University

PROFESSIONAL EXPERIENCE

Data Scientist III - LexisNexis (Nexis + AI), Raleigh

April 2025 - Present

- Developed a high-performance entity name deduplication module using FAISS and graph-based approximate nearest neighbor search
- Scaled entity resolution from 32K to 2M by efficiently disambiguating homonyms based on contextual descriptions

Summer Research Scholar at SCADs - Laboratory of Analytical Science (LAS), Raleigh

June 2024 - July 2024

- Built a multi-agent LLM-based abstractive summarizer to generate balanced summaries from conflicting documents
- Automated summary evaluation using an LLM-as-a-judge framework

Machine Learning Summer Intern - Coupang, Mountain View

May 2022 - Aug 2022

- Improved Coupang's Deep & Cross Network (DCN) model's efficiency by removing spurious features
- Automated benchmarking on public datasets and created scripts for easy-to-run experiments for comparison

Machine Learning Summer Intern - Seagate, Longmont

May 2020 - Aug 2020

- Designed a graph-based, unsupervised abstractive multi-document text summarizer for a social listening app
- Implemented an unsupervised aspect-based sentiment analyzer for comparative online user reviews

Computer Science Summer Intern - *Lenovo, Morrisville*

May 2018 - Aug 2018

- Automated test plan generation by extracting executable commands from test specification documents
- Reduced test suite execution time by leveraging recent results to skip low-impact tests that are likely to pass

Member of Technical Staff - Oracle, Bangalore

July 2015 - June 2017

- Designed and developed Service Deployment Infrastructure (SDI) modules for Oracle Public Cloud (OPC)
- Implemented modules for a data center-level load balancer and reduced runtime by increasing parallelism

SKILLS

Programming Languages: Python, Java, Shell, SQL, PHP, HTML, JavaScript

API and Libraries: PyTorch, Tensorflow, Scikit Learn, Gensim, Numpy, Pandas, REST

LEADERSHIP & COMMUNITY SERVICES

- Reviewed research papers for reputed conferences and journals, including ACL, ACM-TIST, AAMAS, and IEEE
- President and Head of Events for the Indian Graduate Student Association (IGSA), NCSU www.maitrincsu.org
- Organizer and host for the AI in Society Seminar Series at NC State University Talks available on YouTube
- Mentored three graduate students at NC State University in their research