

# Monoshiz Mahbub Khan

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Personal website [◇](#) [LinkedIn profile](#)

Available from September 2026

## EDUCATION

### PhD in Computing and Information Sciences

Rochester Institute of Technology  
August 2021 - Present (Expected: July 2026)  
CGPA: 3.93 (out of 4.00)

### BSc in Computer Science and Engineering

University of Dhaka  
January 2016 - January 2020  
CGPA: 3.55 (out of 4.00)

## PUBLICATIONS

- Khan, M. M., & Yu, Z. (2024). [Approaching Code Search for Python as a Translation Retrieval Problem with Dual Encoders](#). *Empirical Software Engineering*, 30(1), 1-28. DOI: 10.1007/s10664-w024-10580-3
- Khan, M. M., Xi, X., Meneely, A., Tang, Y. & Yu, Z [Efficient Story Point Estimation With Comparative Learning](#). arXiv preprint arXiv:2507.14642 (2026).
- Bethi, M. R., Jhade, S. R., Yaganti, P., Khan, M. M., & Yu, Z. [Modeling Art Evaluations from Comparative Judgments: A Deep Learning Approach to Predicting Aesthetic Preferences](#). arXiv preprint arXiv:2602.00394 (2026).
- Minni, K., Zhang, Q., Khan, M. M., & Yu, Z. [Modeling Image-Caption Rating from Comparative Judgments](#). arXiv preprint arXiv:2602.00381 (2026).

## WORK EXPERIENCE

### • Intern

June 2024 - August 2024

#### ABB

Mannheim, Germany

- Developed an end-to-end Named Entity Recognition (NER) pipeline to serve as an internal product for engineers. Used traditional NLP methods, ML models, deep learning models and LLMs.
- Final NER model showed an improvement in F-1 score of **0.36** over the initial NER model.
- Used various tools including PyTorch, spaCy, scikit-learn, Hugging Face, MLflow.
- Conducted as part of the **DAAD RISE Professional Program 2024**.

### • Graduate Research Assistant

Fall 2021 - Fall 2023, Fall 2024, Fall 2025

Lab of Human-In-the-Loop Software Engineering

Rochester Institute of Technology

#### Supervisor: Dr. Zhe Yu

- Conducted research on **code search** and published in **EMSE**, using NLP and ML tools to retrieve most relevant code snippet based on text query. The proposed showed an average improvement of **10.03%** over state-of-the-art methods in terms of MRR scores.
- Conducted research on **comparative learning**, using NLP and ML tools for agile story point estimation, showing an average increase of **21.84%** in Spearman's rank correlation coefficient scores.
- Conducted human subject experiments to support comparative learning research.
- Also explored research topics involving explainable AI and image classification.
- Served as **Graduate mentor** for **REU Site: Trustworthy AI Workshop 2025**.
- Mentored Masters students on thesis projects.

### • Graduate Teaching Assistant

Rochester Institute of Technology

#### ◦ IDAI-710: Fundamentals of Machine Learning

Spring 2025, Spring 2026

Instructor: Dr. James Heard

#### ◦ IDAI-720: Research Methods for Artificial Intelligence

Spring 2024

Instructors: Dr. Zhe Yu & Dr. Esa Rantanen

## TECHNICAL STRENGTHS

Programming languages

Python, Java, R, C, C++, JavaScript

Machine Learning & AI

TensorFlow, Keras, PyTorch, scikit-learn, LLM fine-tuning, RAG

MLOps & Data Engineering

MLflow, Airflow, PySpark, Docker

Frameworks & Databases

Flask, Spring, Angular, SQL (Oracle, SQLite), NoSQL (MongoDB)

Tools & Methodologies

Git (GitHub, Azure DevOps), LaTeX, Agile, Scrum



Signature