

Monoshiz Mahbub Khan

monoshizmk@gmail.com

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

Available from September 2026

EDUCATION

PhD in Computing and Information Sciences

Rochester Institute of Technology

August 2021 - August 2026

Dissertation: Modeling Comparative Judgments with Machine Learning [\[PDF\]](#)

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

ABB

Mannheim, Germany

- Developed an end-to-end NER/classification pipeline as an internal tool for mechanical engineers
- Worked with text and image based industrial equipment data
- Applied traditional NLP and ML methods, and contemporary deep learning models.
- Final NER model showed an improvement in F-1 score of **0.36** over baseline models.
- Used various tools including PyTorch, spaCy, scikit-learn, Hugging Face, MLflow.
- Conducted as part of the **DAAD RISE Professional Program 2024**.

June 2024 - August 2024

• Graduate Research Assistant

Lab of Human-In-the-Loop Software Engineering

Rochester Institute of Technology

Supervisor: Dr. Zhe Yu

- Conducted research on **Code Search** to build a tool to retrieve the most relevant code snippets based on a text query. The model showed an average improvement of **10.03%** over state-of-the-art methods in terms of MRR scores. This work was published in EMSE and presented at FSE 2025.
- Conducted research on **Comparative Learning** to propose a comparative framework for agile story point estimation to predict more accurate sorted list of user stories. This framework showed an average increase of **21.84%** in Spearmans rank correlation coefficient scores.
- Also explored research involving RLHF, explainable AI and image classification.
- Served as **Graduate mentor** for **REU Site: Trustworthy AI Workshop 2025**.
- Mentored Masters students on thesis projects, helping extending them to submissions for peer-review.

August-December in 2021-2023, 2024, 2025

• Graduate Teaching Assistant

Rochester Institute of Technology

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

January-May in 2025, 2026

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

January-May 2024

TECHNICAL STRENGTHS

Programming languages

Machine Learning & AI

MLOps & Data Engineering

Frameworks & Databases

Tools & Methodologies

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

TensorFlow, Keras, PyTorch, scikit-learn, Transformers, Hugging Face

MLflow, Airflow, PySpark, Docker

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

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



Signature