

# Monoshiz Mahbub Khan

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

Available to start from June 2026

## EDUCATION

**PhD in Computing and Information Sciences**  
Rochester Institute of Technology  
August 2021 - Present (Expected: August 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 under the supervision of Nika Strem 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** **IDAI-720: Research Methods for Artificial Intelligence**  
Spring 2025, Spring 2026 Spring 2024  
Instructor: Dr. James Heard 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



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