

KOHINUR PARVIN

Academic CV | PhD Applications in Computer Science

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<https://scholar.google.com/citations?user=gSFSndsAAAAJ&hl=en>

RESEARCH PROFILE

Computer Science lecturer and researcher with 3+ years of university teaching experience and a research focus on artificial intelligence, machine learning, deep learning, explainable AI, and healthcare analytics. Published work spans medical image analysis, clinical risk prediction, reinforcement-learning-based assistive communication, and emotion recognition. Seeking a PhD position in Germany to develop rigorous, interpretable, and socially impactful AI systems.

RESEARCH INTERESTS

Explainable & Trustworthy AI | Deep Learning & Computer Vision | Reinforcement Learning | Object Detection and Segmentation | Robust & Adversarial ML | Medical AI & Health Data Analytics | Agricultural Robotics

EDUCATION

MSc in Computer Science & Engineering | Jahangirnagar University | Bangladesh (2020)

- CGPA: 3.75/4.00 | Full-time, one-year programme
- **Research project:** "Performance Analysis of Supervised Machine Learning Algorithms on Diabetes and Heart Disease Risk Prediction."
- Evaluated supervised learning models using healthcare datasets, including preprocessing, feature selection, model training, and comparative performance analysis for early risk prediction.

BSc in Computer Science & Engineering | Jahangirnagar University | Bangladesh (2016-2019)

- CGPA: 3.70/4.00 | Full-time, four-year programme
- **Thesis:** "Shanketik: Reinforcement Learning-Enhanced Bangla AAC Application."
- Developed an assistive communication approach for deaf and mute users using a Deep Q-Network to support adaptive text and speech generation.

ACADEMIC EXPERIENCE

Lecturer, Department of Computer Science & Engineering

Netrokona University | Bangladesh | Jan 2025 – Present

- Teach Artificial Intelligence, Neural Networks, Computer Vision, Object-Oriented Programming, Operating Systems, Software Engineering, and Graph Theory.
- Supervise undergraduate theses and research projects in machine learning, deep learning, and software development.
- Design course materials, assignments, assessment methods, and contribute to curriculum development and academic planning.

Lecturer, Department of Computer Science & Engineering

Sonargaon University | Bangladesh | Sep 2022 – Sep 2024

- Taught Computer Architecture, Artificial Intelligence, Software Engineering, and Information Systems.
- Led laboratory sessions in web programming and mobile application development and supported student research projects.
- Prepared teaching materials and evaluation systems and contributed to academic coordination and curriculum activities.

PUBLICATIONS

Journal Paper:

1. Parvin, K., Shuvo, E. A., Khan, W. A., Adib, S. A., Eiti, T. A., Shovon, M., & Nafiz, S. A. (2026). Computationally efficient explainable AI framework for skin cancer detection. *Advances in Science, Technology and Engineering Systems Journal*, 11(1), 11–24.
2. Parvin, K., Polas, M. R. H., & Irikefe, O. B. (2025). State-of-the-Art Review and Future Directions in Artificial Intelligence-Based Detection of Brain Tumors Using MRI Datasets. *Journal of Applied Technology and Innovation*, 9(4), 53-73.
3. Islam, K., Polas, M. R. H., Parvin, K., & Akter, T. (2023). Decoding Demographics on Generation Z's Post-Pandemic Shopping Trends: E-Commerce Evolution 4.0, the Digital Shopper's Dilemma, and Tailoring Strategies. *International Journal of Business, Management and Economics*, 4(4), 360-380.

Conference Paper:

4. Shafkat, A., Parvin, K., Yasar, S., Rahman, M. M., Mallik, B., & Mumenin, N. (2025, August). Assessing the Effectiveness of Supervised Learning Models in Predicting Risks of Diabetes and Cardiovascular Disease with Explainability Analysis. In *International Conference on Data Science, AI and Applications* (pp. 267-282). Cham: Springer Nature Switzerland.
5. Monalisa, N. T., Himi, S. T., Parvin, K., & Uddin, M. S. (2023). Shanketik: Revolutionizing Communication for the Deaf and Mute - A Reinforcement Learning-Enhanced Bangla AAC Application. *26th International Conference on Computer and Information Technology (ICCIT)*, pp. 1-5. IEEE.
6. Suity, R. A., Samin, N. H., Mallik, B., Shafkat, A., Rahman, M. M., & Parvin, K. (2025). ARMEN: Adversarially Resilient Network for Emotion Recognition from Music. *IEEE International Conference on Signal Processing, Information, Communication and Systems (SPICSCON)*, pp. 271-276.

Under Review:

7. "CerebroFuse: A Leakage-Controlled, Cross-Source Evaluation of Deep and Foundation Models for Brain Tumor MRI Detection" *Journal of Imaging Informatics in Medicine* (Springer Nature), 2026.
8. "A Hybrid Deep Learning Approach for Eggplant Leaf Disease Classification with Explainable Artificial Intelligence" *Engineering Reports* (Wiley), 2026.

TECHNICAL & RESEARCH SKILLS

- **Programming:** Python, Java, C, C++, C#, JavaScript
- **AI & Data Science:** Machine learning, deep learning, neural networks, PyTorch, TensorFlow, data analysis, explainable AI
- **Databases:** SQL, PL/SQL
- **Tools & Platforms:** MATLAB, R, Android development, web programming, Microsoft Office
- **Academic:** Research supervision, curriculum development, scientific writing, teaching and mentoring

SCHOLARSHIPS & AWARDS

- National Science and Technology (NST) Fellowship, 2021

- Jahangirnagar University Academic Merit Scholarship, 2016-2019
- Dutch-Bangla Bank (DBBL) Scholarship - Secondary School Certificate
- Government Junior School Scholarship, 2010

LANGUAGES

- **Bengali:** Native
- **English:** B2
- **German:** A1

REFERENCES

Dr. Md. Ezharul Islam

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Engineering
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