Kamrul Hasan

San Marcos, TX 78666 , USA
kamrul.hasan@txstate.edu LinkedIn GitHub

RESEARCH INTERESTS

Eye Tracking, Computer Vision, Machine Learning, Biometrics, Generative AI

EDUCATION

Texas State University, San Marcos, Texas *Texas-78666, USA*
Ph.D. in Computer Science *Fall-2025- Present*

Begum Rokeya University, Rangpur *Rangpur-5404, Bangladesh*
B.Sc. in Computer Science & Engineering *Year of Graduation: 2023*
Obtained CGPA: 3.66/4.00(**1st class 1st**)

JOB EXPERIENCE

Texas State University | Doctoral Instructional Assistant *Fall-2025- Present*
As a Doctoral Instructional Assistant in Computer Science, I contribute to teaching support, grading, exam supervision, and faculty assistance.

Next Solution Lab | Artificial Intelligence Engineer *August 2023 – August 2025*
Worked on improving OCR accuracy from 90% to 95% by developing an advanced algorithm and designing a CAAS solution for streamlined data extraction from documents. Additionally, implemented task-specific Deepfake Detection, RCNN, YOLO, CLIP, and Generative AI models.

PUBLICATIONS

[1] **Hasan, K**., Tuhin, K. A., Bapary, M. R. I., Doula, M. S. U., Alam, M. A., Ahad, M. A. R., & Uddin, M. Z. (2025). MMF-Gait: A Multi-Model Fusion-Enhanced Gait Recognition Framework Integrating Convolutional and Attention Networks. Symmetry, 17(7), 1155.

[2] Doula, M. S. U., **Hasan, K.**, Anutariya, C., & Alam, M. A. (2025, August). A vision-language approach for detecting and classifying floating debris on aquatic surfaces. In Eighth International Conference on Machine Vision and Applications (ICMVA 2025) (Vol. 13734, pp. 119-127). SPIE.

[3] Uddin, M. Z., **Hasan, K.**, Ahad, M. A. R., & Alnajjar, F. (2024). Horizontal and Vertical Part-wise Feature Extraction for Coss-view Gait Recognition. *IEEE Access*.

[4] **Hasan, K.**, Uddin, M. Z., Ray, A., Hasan, M., Alnajjar, F., & Ahad, M. A. R. (2024). Improving Gait Recognition through Occlusion Detection and Silhouette Sequence Reconstruction. *IEEE Access*.

[5] Ray, A., Uddin, M. Z., **Hasan, K.**, Melody, Z. R., Sarker, P. K., & Ahad, M. A. R. (2024). Multi-Biometric Feature Extraction from Multiple Pose Estimation Algorithms for Cross-View Gait Recognition. *Sensors*, *24*(23), 7669.

SEMINAR AND WORKSHOP

- **The IAPR/IEEE Winter School on Biometrics**, 2023, Shenzhen-China *January 2023*
- **Advancing Data Science in Bangladesh** (Somikoron AI) *March 2023*
- Seminar on Artificial Intelligence (Begum Rokeya University, Rangpur) *August 2022*
- Seminar on Biometrics, Big Data Analysis and Quantum Computing *November 2021*

AWARDS

- **'Outstanding Participation Award'** from **IAPR/IEEE Winter School on Biometrics**-2023, Shenzhen-China.
- **Bangabandhu Merit Scholarship (8 out of 8 Times)** from Begum Rokeya University, Rangpur (2017 – 2023).
- **Regional Champion** of Bangladesh Olympiad on Astronomy and Astrophysics-2016 (Position 6th, Rangpur Division, Bangladesh).
- **Talent Pool Scholarship** for outstanding results.

COMMUNITY SERVICE

- **Volunteer Peer Reviewer**
  - Neurocomputing Journal, Netherlands *November 2023 – Present*
  - IEEE Access Journal, United States *August 2024 – Present*
  - Scientific Reports, United Kingdom *March 2025 – Present*

TECHNICAL SKILLS

- **Programming Languages:** C, C++, Java, Python, MATLAB
- **Framework:** PyTorch, TensorFlow, Scikit-learn, Keras, Django
- **AI Related Technology:** Computer Vision, Machine Learning, NLP, Generative AI
- **Databases:** MySQL, MongoDB
- **Tools:** GCP, Git, AWS Cloud

RESEARCH AND PROJECTS

- Cross View Gait Recognition via bidirectional part-wise local and global feature extraction | PyTorch
- MMH-Gait: A Multi Model Hybrid Approach for Gait Recognition with Fusion Methods | PyTorch [SourceCode]
- Vision Transformer (ViT) based Food Classification | PyTorch [SourceCode]
- Bird Species Classification using Inception-v3 Network | Keras, TensorFlow [SourceCode]
- Masked Language Modeling for Bangla Text Using BERT Model | Keras, TensorFlow [SourceCode]
- Auto-Encoder Transformation Model: From Handwritten to Font Digits | Keras, TensorFlow [SourceCode]
- Blood Donor App | Java [SourceCode]