Murad Hasan

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Research Interest

- Human Action Recognition
- AI Ethics
- Computer Vision
- Deep Learning
- Image Processing
- Machine Learning

Education

University of Southern Mississippi   Jan. 2025 – present
Master of Science in Computer Science   Mississippi, USA

GPA - 3.75 out of 4.00

Brac University   2018 – 2022
Bachelor of Science in Computer Science and Engineering   Dhaka, Bangladesh

CGPA - 3.92 out of 4.00

Major GPA - **4.00** out of 4.00

Publications

- **M. Hasan**, S. Iqbal, M.B.H. Faisal, M.M.H. Neloy, M.T. Kabir, M.T. Reza, M.G.R. Alam, M.Z. Uddin, "*A Computer Vision Based Approach for Stalking Detection Using a CNN-LSTM-MLP Hybrid Fusion Model*", IEEE Open Journal of the Computer Society **(Q1, Impact Factor: 8.2)**. [Under Review, Preprint]

- **M. Hasan**, R. Abdelfattah, A. Sherif, "*A Comprehensive Survey on Facial Expression Generation: From GANs to LLM-Guided Multimodal Models*", IEEE Open Journal of the Computer Society **(Q1, Impact Factor: 8.2)**. [Under Review]

- A. Hossain, **M. Hasan**, R. Abdelfattah, K. Abdelfattah, "*Evaluating Prompt-Guided Vision-Language Models for Crack Segmentation*", IEEE International Midwest Symposium on Circuits and Systems **(MWSCAS 2025)**, Lansing, MI, USA. [Accepted, in press]

- A. Hossain, **M. Hasan**, R. Abdelfattah, D. Scott, K. Abdelfattah, A. Sherif, "*Evaluating Prompt Engineering for Generalized Power Line Segmentation*", **IEEE SoutheastCon 2025**, Concord, NC, USA. DOI: 10.1109/SoutheastCon56624.2025.10971697

- M. H. K. Mehedi, I. Arafin, **M. Hasan**, F. Rahman, R. Tasin, A. A. Rasel, "*A Transfer Learning Approach For Efficient Classification of Waste Materials*", 2023 IEEE 13th Annual Computing and Communication Workshop and Conference **(CCWC)**, Las Vegas, NV, USA. DOI: 10.1109/CCWC57344.2023.10099127

Ongoing Research Projects

- Federated Learning–Based Decentralized Facial Expression Recognition System
  Supervisor: Dr. Rabab Abdelfattah   (Oct. 2025 - Present)

- An Agentic AI–Driven Multi-Agent Surveillance System for Human Action Recognition
  Supervisor: Dr. Rabab Abdelfattah   (Aug. 2025 - Present)

- AI in Bereavement Care: Challenges, Framework, and Design Guidelines for Griefbots
  Supervisor: Dr. Rabab Abdelfattah   (Jan. 2025 - Present)

Work Experience

Graduate Research Assistant   Jan. 2025 – Present
Supervisor: Dr. Rabab Abdelfattah, University of Southern Mississippi   Mississippi, USA

- Working on computer vision and AI projects including segmentation, action recognition, agentic AI, and AI ethics.
- Developing and optimizing computer vision models for tasks such as object detection and classification.
- Presenting research progress in lab meetings, seminars, and academic conferences.

Adjunct Lecturer   Sept. 2022 – 2024
Brac University   Dhaka, Bangladesh

- Designed and implemented effective and inclusive teaching arrangements and learning activities.
- Developed and monitored assessments to measure students performance and understanding.
- Written research proposals, papers and other publications.
- **Courses taught**: Programming Language, Data Structures, Operating Systems, Microprocessors.

Software Engineering Intern   Aug. 2022 – Oct. 2022
Samsung R&D Institute Bangladesh   Dhaka, Bangladesh

- Designed and built applications for the WearOS platform.
- Worked on bug fixing and improving application performance.
- Built two health services applications in WearOS to measure heart rate and track deadlift exercise.

Leadership Experience

Director of Information and Technology   Jan. 2019 – Feb. 2022
Brac University Business Club (BIZ BEE)   Dhaka, Bangladesh

- Led a team of 25 people to carry out departmental responsibilities.
- Successfully directed a few events' digital campaigns, including a business case competition.

Volunteer   Dec. 2016 – Apr. 2018
Obhizatrik Foundation   Dhaka, Bangladesh

- Worked closely with underprivileged children to provide quality education and health care.
- Organized and executed successful events, fundraisers, or campaigns to raise awareness and funding.

Honors and Scholarships

- **Merit Based Scholarship, Brac University.**
- **Awarded Vice-Chancellor and Dean List Student, Brac University.**

Programming and Computing Skills

Languages: Python, Java, C++, SQL, HTML, CSS

Developer Tools: Jupyter Notebook, PyCharm, VS Code, Android Studio, NetBeans

Frameworks / Technologies: Tensorflow, Keras, Django, GitHub

References

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