

# M Iffat Hossain

+1 689-276-9021 — miffat.hossain@ucf.edu — GitHub

## Objective

To obtain an internship by leveraging my expertise in deep learning, machine learning, and data-driven methodologies, with a strong focus on applications in robotics. I aim to contribute to innovative projects involving state-of-the-art AI and robotics solutions, while further enhancing my skills in developing scalable AI/ML systems that support cutting-edge technological advancements.

## Education

- **University of Central Florida** — *Ph.D. in Computer Engineering* Jan 2024 - Apr 2028  
Advisor: Prof. Laura Brattain  
Research Area: Medical Robotics and application of Machine Learning on Medical Images
- **Khulna University of Engineering and Technology** — *B.Sc. in Electronics and Communication Engineering* Mar 2016 - Feb 2020

## Publications

- U. Saha, I. U. Ahamed, **M. I. Hossain**, “YOLOv8 for Bangla License Plate Recognition: Advancing Real-Time Object Detection in Localized Contexts,” *7th ICICoS, Semarang, Indonesia*, 2024.
- **M. I. Hossain**, A. Billa, M. E. Karim, “Prediction of IDC Breast Cancer by the Application of Transfer Learning with an Ensemble Method,” *ICICT4SD, Dhaka, Bangladesh*, 2023.
- **M. I. Hossain**, U. Saha, A. Billa, “The Application of a Synonyms Dictionary Using Bi-LSTM in Bangla for Better Approximation,” *ICICT4SD, Dhaka, Bangladesh*, 2023.

## Projects

- **Biomedic Segmentation in low end devices** Aug 2025 - Current  
*NIMBUS Lab, UCF*  
Created an optimized AI segmentation model that can segment images in lower end devices
- **Kinova Project** Jan 2025 - Jul 2025  
*NIMBUS Lab, UCF*  
Realtime segmentation and automated movement of Kinova Robotic arm
- **Realtime Laboratory Simulation in Unity3D** Jan 2024 - Mar 2024  
*AI and Emerging Computing Lab, UCF, in collab. with Argonne National Laboratory*  
Developed realistic Unity3D simulations for lab environments
- **Segmentation of Moto Rider’s Front View for Path Recognition** Jun 2023 - Dec 2023  
*BJIT Ltd.*  
Enhanced path recognition via segmentation algorithms.
- **Interactive Social Platform for Animation and Game Showcasing** Jun 2022 - Jun 2023  
*BJIT Ltd. in collab. with Gonzo, Japan*  
Designed and implemented an AR/VR platform for interactive media sharing.
- **Blockchain-Based Decentralized Car Ownership System** Jan 2022 - Jun 2022  
*BJIT Ltd.*  
Created a blockchain network to manage decentralized car ownership.
- **Prediction of Distribution of Products for Maximum Revenue** Jun 2020 - Dec 2020  
*Robi Axiata Ltd.*  
Analyzed product distributions to maximize revenue using XGBoost.

## Skills

- **Programming Languages:** Python, C++, C#, MATLAB, SQL, PHP, JavaScript, Solidity
- **Deep Learning Tools:** PyTorch, Keras, TensorFlow
- **Hardware Platforms:** Arduino, ESP32, Raspberry Pi
- **Graphics and Simulation Tools:** Blender, Unity Game Engine
- **Languages:** Bangla, English

## Professional Experience

- **University of Central Florida** — *Graduate Research Assistant* *Aug 2025 - Current*  
Applications of AI in Robotics and Medical imaging.
- **University of Central Florida** — *Graduate Teaching Assistant* *Jan 2025 - Aug 2025*  
Modern & Robust control, Computer Networks and Digital systems.
- **University of Central Florida** — *Graduate Research Assistant* *Jan 2024 - Dec 2024*  
Simulation of robotic lab environments using Unity3D; synchronization of multi-workcell robots.
- **BJIT Ltd.** — *Software Engineer* *Mar 2020 - Nov 2023*  
Developed metaverse applications, blockchain networks for marketplaces, and facial recognition.
- **Free Pixel Games** — *Software Engineer* *Jan 2020 - Mar 2020*  
Developed AI for enemy and Non Playable Characters.
- **Robi Axiata Ltd.** — *Project Engineer Intern* *Mar 2019 - Dec 2019*  
Automated monitoring systems for nationwide cell towers and user control from dump files.
- **Khulna University of Engineering and Technology** — *Undergraduate Researcher* *Jan 2018 - Jan 2019*  
Implemented a synonyms dictionary based classification for Bangla Natural Language Processing.

## Awards and Honors

- **Employee of the Year**, BJIT Ltd. (2022)
- **Engineering Scholarship**, Undergraduate (2016 - 2020)
- **Gold Medalist**, National Technology Olympiad, Dhaka Division (2015)
- **2nd Place**, National Olympiad in Software Innovation (NOSI) (2013)
- **Champion**, National Math Olympiad, Dhaka Division (2012)

## Leadership and Technical Activities

- **President**, Manipulators of Electron Club (MEC), KUET  
Led and managed technical initiatives, fostering innovation and collaboration among students.
- **Assistant Organizing Secretary**, KUET Math Club  
Organized mathematical events and competitions to promote analytical problem-solving skills.
- **Member**, IEEE Student Branch, KUET  
Contributed to academic and professional development activities as part of the IEEE community.
- **Member**, Innovation and Research Association for Students (IRAS)  
Participated in research and innovation-driven initiatives at KUET.
- Organized **Technival '18** (National tech feast), KUET  
Fostered technical growth and innovation among students through national-level events.
- **Organizer and Trainer**, Arduino and Line Follower Robot Workshop, KUET  
Trained students in Arduino programming and robotics.

## Workshops and Seminars

- **President and Trainer**, Manipulators of Electrons Club, KUET (2019 - 2020)  
Conducted seminars and workshops on programming and electronics.
- Organizer of **IoT and Robotics Workshop** by EEE Makers Hub, KUET.
- Organizer of **Tech Festival (Technival)** 2018, KUET  
Coordinated seminars and competitions focused on technological applications and innovation.
- Instructor of **Workshop on Raspberry Pi**, Fablab, KUET.
- **Trainer and Workshop Manager**, Ideal Science Club, Ideal School and College (2010-2012)  
Conducted hands-on workshops and promoted STEM education.

## Certifications

- **Machine Learning with Python**, Coursera (by IBM Online Machine Learning Certification)  
Completed coursework on Python for machine learning applications.
- **Deep Learning Specialization**, Coursera (by DeepLearning.AI Online Certification)  
Gained comprehensive knowledge of deep learning techniques.
- **TensorFlow Developer Professional Certificate**, Coursera (by DeepLearning.AI Online Certification)  
Demonstrated proficiency in building and deploying ML models with TensorFlow.
- **Scrum Team Member Accredited Certification**, International Scrum Institute  
Acquired expertise in Scrum roles, events, and artifacts to enhance collaboration and management within Agile teams.