



MOHAMMAD EMDADUL ISLAM

Software developer

I'm a driven software developer with over 3 years of experience and a strong background in embedded systems and robotics. Proficient in C++, Python, and deep learning technologies, I've supported cashless payment systems, developed gesture recognition solutions, and improved KPIs for digital attendance electronic devices. With strengths in problem-solving, attention to detail, and team collaboration, I aim to contribute to innovative software development with excellence.

CONTACT



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SOCIAL LINKS



[linkedin](#)



[GitHub](#)



[XING](#)



[ResearchGate](#)

HARD SKILLS

- Python (Basic to Advance modules)
- C++ (C++17 Standard Library, Object-Oriented Programming)
- C# (.Net, .Net Core, Winforms)
- UI development: Qt5/Qt6, Winforms, PyQt5
- Version Control (Git, GitHub, GitLab)
- Containerization (Docker, Kubernetes)
- CI/CD (GitHub Action, Jenkins)
- Operating System (Linux: Ubuntu, Windows)
- Machine Learning: Deep Learning (PyTorch, TensorFlow)
- Computer Vision (OpenCV)
- MicroController (Arduino, ESPs, PIC)
- Microsoft Office-(Word, Excel, Powerpoint)
- Microsoft Visual Studio, Visual Studio Code, Eclipse, Qt Creator
- IoT (MQTT, GPS, GSM)

EXPERIENCE

IT Assistant

(REWE Pick and Go) at Trigo Vision, Cologne, Germany

November 2023- February 2024

Description:

- Introducing and supporting a new cashless payment system, processing process data, and conducting test purchases.
- Mapping products and installing smart shelves using custom software
- Troubleshooting system bugs, solving tickets generated by ticketing tool

Master's Thesis Student

Robotics Research Lab, RPTU, Germany

November 2022- August 2023

Topic: Dynamic Hand gesture recognition for human-robot interaction

Description:

- Developed a Dynamic hand gesture recognition system utilizing 3D CNN, LSTM, and PyTorch for enhanced depth perception.
- Implemented robotic control systems using C++ and Finroc and designed intuitive GUIs with Fingui.
- Integrated the gesture recognition solution into Ameca for real-world applications.

Achievement:

Utilized pre-trained model, boosting project efficiency to 95.5%, outperforming alternatives.

Software Developer

Stellar, Bangladesh

March, 2017-February, 2019

Description:

- Led software design and implementation for electronic devices, overseeing the entire development cycle.
- Played a key role in system software development using C++ and Python, including coding, testing, and debugging.
- Collaborated with cross-functional teams to integrate software and hardware components effectively.

Achievements:

- Improved project KPIs from 95% to 99.5%. Optimized costs by strategically utilizing affordable sensors

SOFT SKILLS

- Collaboration and Teamwork
- Meeting deadlines
- Friendly
- Multi-tasking
- Problem Solving and Troubleshooting
- Attention to details

LANGUAGES





ENGLISH C1



GERMAN B1



INTERESTS

-  Photography
-  Playing sports
-  Cooking
-  Travelling

EDUCATION

- M.Sc. in Embedded Systems, Rheinland-Pfälzische Technische Universität Kaiserslautern- Landau(RPTU), Kaiserslautern
[March 2019-February 2024](#)
- B.Sc. in Electrical and Electronic Engineering, University of Science and Technology Chittagong, Chittagong
[March 2013 - February 2017](#)

PROJECTS

- Human Activity Recognition using Deep Learning.
Robotics Research Lab, RPTU. [March 2023](#)
Technologies: 3D CNN+LSTM, Tensorflow, OpenCV, Computer Vision
- American sign language recognition using OpenCV and Mediapipe.
Robotics Research Lab, RPTU.
[January 2023 - February 2023](#)
Technologies: OpenCV, Mediapipe
- Synchronization of data sets between various clients, allowing each client to edit the desired data using CAN protocol. **Dept. of EIT, RPTU**
[December 2021 - February 2021](#)
Technologies: VHDL, Verilog
- Advanced Voice-Activated Smart Home Management System. **Embedded Intelligence Group, RPTU**
[November 2020](#)
Technologies: C#, Winforms
- An advanced Library Management Systems for Universities.
Dept. of Computer Science. [January 2021](#)
Technologies: C#, Winforms
- Fingerprint, RFID, and Cloud-based attendance Systems,
Stellar, Bangladesh. [January 2018](#)
Technologies: RFID, Fingerprint Sensor, C++, ESP32, MQTT
- GPS, Beacon-based vehicles and person tracking systems.
Stellar, Bangladesh [August 2018](#)
Technologies: Beacon, C++, ESP32, GPS
- Electronic Voting Management Systems
Dept. of EEE,USTC, Bangladesh, [July 2016](#)
Technologies: PIC microcontroller, C

TRAININGS & COURSES

- Neural Networks and Deep Learning, DeepLearning AI.
- AI National Skill Standard Basic (360 hours) "Programmable Logic Controller (PLC)", BKTTC, Chittagong.
- Continuous Integration and Continuous Delivery with GitLab. (Simplilearn)
- Docker Training Course, KodeKloud.
- Agile Project Management by Google. Coursera

PUBLICATIONS

- A New Design Approach for Gesture Controlled Smart Wheelchair Utilizing Microcontroller. Publisher: IEEE, DOI: 10.1109 /ICISSET.2018.8745607
- Design and Implementation of Microcontroller Based Anti-Theft Vehicle Security System using GPS, GSM and RFID. Publisher: IEEE, DOI: 10.1109 /ICISSET.2018.8745607
- Vehicle Tracking and Monitoring System for Security Purpose Based on Thermo Electric Generator (TEG). Publisher: Springer, DOI: 10.1007/ 978-981-13- 7564-4_5