

# MD MONIRUL ISLAM

Omaha, Nebraska, 68105

[im.monirul755@gmail.com](mailto:im.monirul755@gmail.com) ♦ <https://hi-mmi.github.io> ♦ [linkedin.com/in/mm2islam](https://www.linkedin.com/in/mm2islam)



## PROFESSIONAL SUMMARY

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Cybersecurity student, adept in Wireshark, Autopsy, and Metasploit, and a former Embedded Systems Engineer. Pursuing a cybersecurity-focused PhD at the University of Nebraska Omaha. Committed to securing systems, learning from experts, and thriving in a dynamic internship

## EDUCATION

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### PhD in Information Technology

Jan 2023 - Present

- University of Nebraska at Omaha, NE, USA.

### Bachelor of Science in Electronics and Communication Engineering

Apr 2015 - Mar 2019

- Khulna University of Engineering & Technology, Khulna, Bangladesh.

## PROFESSIONAL EXPERIENCE

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### Embedded Systems Engineer

Feb 2020 - Jun 2022

Vertical Innovations Ltd

*Dhaka, Bangladesh*

- Developed firmware for IoT devices, utilizing MQTT, OTA technologies.
- Actively developed IoT-based vending machines from concept to production.
- Managed a team of 6 to maintain the smooth operation of 100+ vending machines.
- Proposed, planned, and executed a \$20,000 water treatment plant IoT automation project.

## ACADEMIC EXPERIENCE

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### Graduate Research Assistant

Jan 2023 - Present

College of Information, Science & Technology, University of Nebraska at Omaha

*Omaha, NE, USA*

- Assessing cyber security vulnerabilities in edge computing sensors and recommending countermeasures.
- Developing a secure framework for real-time data collection from edge sensors, ensuring continuous bridge health monitoring.

## ACADEMIC PROJECTS

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### Copyright Infringement Analysis with Autopsy

- A suspected PC was examined due to alleged illegal possession of copyrighted digital content.
- Analyzed hard disk with Autopsy, systematically searching the entire hard disk for relevant digital content.
- Successfully recovered suspected file, following evidence preservation protocols for data integrity.
- Documented analysis thoroughly, ensuring comprehensive records for legal purposes.
- Prepared detailed report, summarizing investigation results with crucial evidence for legal support.

## SKILLS

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### Tools

Autopsy, Wireshark, Metasploit

### Programming Language

C, C++, Python

### Scripting Language

MATLAB

### Microcontrollers

ESP8266, ESP32, Atmega328P, STM32F103C8T6

### Peripherals

UART, Oscillator, I2C, Output Compare, Timer, Interrupt