

Shourav Misro

B.Sc. in CSE
Ahsanullah University of Science Technology

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PERSONAL PROFILE

Dealing with practical issues excites and motivates me. Through team collaborations and the organization of competitive events, I have developed my technical talents, communication abilities, and leadership traits, all of which stem from my passion for programming and hardware. The opportunity to join a prestigious organization excites me because it will allow me to put my skills to use, learn new things, and advance in my career. My readiness to have a significant influence in the IT business is a result of my problem-solving skills, resilience, and dedication to excellence.

EDUCATION

Ahsanullah University of Science Technology

Nov 2021 – Dec 2025

B Sc. in Computer Science and Engineering

Bir Shreshtha Munshi Abdur Rouf Public College

2020

HSC

GPA: 5.0

EXPERIENCE

AI & Hardware Developer, AI ROBOT BONDHU, Intvill Limited .
ICT Ministry, Bangladesh

2016-2019

- Contributed to hardware integration and embedded firmware development.
- Assisted in sensor interfacing and actuator control logic.
- Participated in system testing and performance validation.
- Supported debugging and optimization of embedded modules.

SKILLS

- **Programming Languages:** Python, C, C++, Java, C#, HTML, CSS
- **MCU Platforms:** ESP32, Arduino (AVR-based), Raspberry Pi
- **Peripheral Interfaces:** GPIO, ADC, PWM, Timers
- **Communication Protocols:** UART, I2C, SPI, MQTT, HTTP/REST
- **IDEs:** Arduino IDE, VS Code, Docker, Git
- **Interrupt handling and timer-based task execution**
- **Sensor interfacing and actuator control**
- **Firmware debugging and system validation**
- **Soft-Skills:** Leadership, Communication, Teamwork, Adaptability.

Electronics & Circuit Knowledge

- Strong understanding of DC circuits, voltage regulation, and power monitoring
- Experience with MPPT & PWM charge controller integration
- Relay control and protection systems
- Voltage and current sensor integration
- Basic knowledge of AC fundamentals and power systems

PERSONAL PROJECTS

Hardware Projects

- [Implementation of Intelligent solar panel system](#) [Esp 32 , Jetson Nano , MPPT, PWM] 2024 - 2025
 - Developed firmware in Embedded C for real-time power monitoring and protection.
 - Implemented I2C communication for environmental sensors (BME280, BH1750).
 - Designed PWM-based charge controller integration for optimized energy management.
 - Integrated voltage and current sensors for real-time data acquisition.
 - Implemented relay-based protection mechanism for fault handling & Power Sharing.
 - Performed system validation, sensor accuracy testing, and power analysis.
 - Developed an AI/ML-based image processing system for automatic solar panel defect and dirt detection.
- [Traffic Management System](#) [Esp 32 , Gyroscope, Accelerometer, Magnetometer] 2024
 - Implemented sensor data processing algorithm in Embedded C.
 - Designed real-time decision-making logic at edge level.
 - Optimized firmware for low-latency response.

- [The Unified Smart Home Ecosystem](#) [Esp 32 , Raspberry Pi , mmWave] 2025
 - Developed firmware for multi-sensor data acquisition using GPIO and ADC.
 - Implemented interrupt-driven motion detection.
 - Designed MQTT-based communication for IoT data transfer.
 - Developed automation logic for real-time control and monitoring.
 - Performed hardware debugging and integration testing.
- **Smart Security System** [Arduino Uno, Sonar, Keypads, GSM module, Wi-Fi Module] 2016
 - An IoT project with real time tracking and calling messaging feature
- **Affordable Prosthetic Hand for Physically disabled people** [3D Printing , Servo Motor] 2019
 - Designed and developed a low-cost 3D-printed prosthetic hand prototype with basic mechanical actuation to assist physically disabled individuals in performing daily activities.

Software Projects

- [LearnLink](#) [Role: QA Engineer | HTML, JavaScript, CSS, C#, ASP.NET MVC] 2024
 - Created and executed **50+ test cases** to validate system features and user interactions.
 - Tested **30+ complete user journeys**, including course enrollment, content access, and account management.
 - Verified **500+ data records** to ensure accuracy of user progress and course information.
 - Identified, reported, and tracked **20+ issues**, working closely with developers to confirm fixes and improve overall quality.
- **Local Business Directory** [HTML, CSS, Bootstrap, PHP, MySQL] 2024
 - A **web-based business directory system** with integrated database support to manage and display local business information efficiently.
- [Hospital Management System](#) [Java, MySQL Server] 2023
 - A **hospital management application** to streamline patient records, appointments, and overall hospital operations for efficient management.

Research Work:

- [Design & Implementation of Intelligent Solar Panel System](#) *Abstract published at IEEE CS BDC Summer Symposium 2025, HSTU.*
 - Implementation with system testing, data validation, sensor accuracy verification, automation and monitoring.

EXTRACURRICULAR ACTIVITIES

- **Organizing Committee Member** , SPRING 2024
 - AUST CSE CRICKET TOURNAMENT.
 - ANNUAL PICNIC of CSE DEPT.
 - AUST CSE CARNIVAL 5.0.
 - AUST CSE REVELRY, Annual Fest of CSE DEPT.

COCURRICULAR EXPERIENCE

- ICT Olympiad Bangladesh
Campus Ambassador 2022-2023
- AUST ROBOTICS CLUB
Executive 2021-2025
- AUST PROGRAMING & INFORMATION CLUB
Executive 2021-2025

ACHIEVEMENTS

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| <ul style="list-style-type: none"> ▪ SQA Hackathon 2026 by Tech X
2026 Champion
Identified 20+ defects in a banking web application within 3 hours through structured manual testing and quality bug reporting. ▪ BCSIR NATIONAL SCIENCE FEST
2016 Champion
Project showcase: Smart Security System ▪ BCSIR NATIONAL SCIENCE FEST
2019 Runner-Up
Project Showcase: Affordable Prosthetic Hand for Physically disabled people ▪ ROBOMANIA 1.0
2024 Runner-up
Bot Fight ▪ CEFALO, AUST CSE CARNIVAL 2.0
2023 Runner-up
Soccer-Bot Competition | <ul style="list-style-type: none"> ▪ AC RED League Football Tournament
2024-2025 Champion
Football Tournament ▪ AUST CSE FUTSAL CHAMPIONSHIP, Fall'24
2025 Champion
Inter Aust CSE Football tournament ▪ AUST CSE FOOTBALL CHAMPIONSHIP, Fall'24
2025 Runner-up
Inter Aust CSE Football tournament ▪ AUST CSE Cricket Tournament, Spring '24
2024 Runner-up
Inter Aust CSE Cricket tournament ▪ Naimal Memorial Cricket Tournament, Fall '22
2023 Runner-up
Inter Aust CSE Cricket tournament |
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