JABED SHARIAR
BSc. IN EEE

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CAREER OBJECTIVE

A motivated Electrical and Electronic Engineering graduate with a strong foundation in circuit design, embedded systems, IoT, and machine learning applications. Seeking an entry-level engineering or research-oriented position where I can apply my technical skills, problem-solving abilities, and hands-on project experience to contribute to innovative and technology-driven solutions while continuously developing my professional expertise.

ACADEMIC QUALIFICATION

- **BSc. in Electrical & Electronics Engineering**
  Daffodil International University (2022–2025)
  CGPA: 3.62 out of 4.00

- **Higher Secondary School Certificate (HSC)**
  Ispahani Public School & College (2018–2019)
  GPA: 5.00 out of 5.00

TECHNICAL SKILLS

- **Simulation & Design Tools:** Proteus, MATLAB, Simulink, Fritzing, CST, AutoCAD 2D, Autodesk Fusion (basic).
- **PCB Design:** Schematic capture and PCB layout using EasyEDA & Proteus.
- **Programming Languages:** C, C++, Python.
- **Hardware & IoT Platforms:** Arduino IDE, ESP32, Raspberry Pi (basic), Pixhawk (basic).
- **IoT Project Design:** End-to-end IoT system development, sensor integration, and wireless communication (LoRa, Wi-Fi, etc.).
- **Circuit Design & Prototyping:** Analog/digital circuit design, breadboard prototyping, and hardware implementation.
- **Lab & Instrumentation:** Skilled in oscilloscopes, function generators, and electrical measurement tools

PUBLICATIONS

- S. Roychoudhury, J. Shariar, and R. Alam, **"Analyzing fractional order systems of RLβCα circuits: An HF-based efficient approach,"** in *Proc. 2024 **IEEE Int. Conf. Smart Power Control and Renewable Energy (ICSPCRE)***, Rourkela, India, 2024, pp. 1–6, doi: 10.1109/ICSPCRE62303.2024.10674916.
- J. Shariar, R. Rayhan, U. N. Rohit, H. M. R. Ahammed, and T. Fouzder, **"A solar-powered IoT system for real-time water quality monitoring using LoRa and machine learning,"** in Proc. 2025 **IEEE 2nd Int. Conf. Computing, Applications and Systems (COMPAS),** Kushtia, Bangladesh, Oct. 2025, pp. 1-6, accepted for presentation.
- A. H. Sadhin, R. Rayhan, M. T. A. Simon, M. A. Sadhin, and J. Shariar, **"Enhanced two-stage detection framework with algorithm–control coupling for autonomous underwater debris localization,"** in Proc. 2**nd Int. Conf. Engineering and Technology for Sustainable Development (ETSD)**, Jashore, Bangladesh, Jan. 2026, pp. 1–4, accepted for presentation.

EXPERIENCE

- **President** — *DIU Robotics Club* | **September 2025 – December 2025**
  -Led strategic planning and technical initiatives of the club, coordinating workshops, projects, and student engagement activities.
- **Industrial Trainee** — *Ghorashal Training Center (BPDB), Narsingdi* | **January 21 – February 3, 2025**
  -Completed hands-on industrial training on power generation systems, electrical safety practices, and substation operations under BPDB.
- **Trainer & Instructor** — *Introduction to Arduino and Motor Control Workshop*
  Organized by DIU Robotics Club | **May 2025**
  -Conducted technical training sessions on Arduino programming, motor drivers, and practical motor control applications.
- **General Secretary** — *DIU Robotics Club* | **January 2025 – August 2025**
  -Managed administrative operations, event coordination, documentation, and inter-club communications.
- **Assistant General Secretary** — *DIU Robotics Club* | **February 2024 – December 2024**
  -Assisted in organizational management, event planning, and member coordination activities.
- **Executive Member** — *IEEE DIU Student Branch* | **June 2024 – December 2024**
  -Actively participated in organizing IEEE technical seminars, workshops, and student activities.
- **Secretary** — *IEEE Industry Applications Society (IAS), DIU Student Branch* | **March 2024 – July 2024**
  -Maintained official records, coordinated events, and supported professional development programs.
- **Member Development Coordinator** — *IEEE IAS DIU Student Branch* | **August 2023 – March 2024**
  -Led member recruitment, engagement initiatives, and skill-development activities.
- **Ambassador** — *Daffodil International University for IEEE KUET Student Branch* | **August 2023 – October 2023**
  Represented DIU at *Authorsgate 3.0* by IEEE KUET SB.

ACADEMIC & TECHNICAL PROJECTS

- **ML-Based Intelligent Environmental Quality Prediction System (Solar-Powered, LoRa-Enabled) (2025)**
Developed a solar-powered IoT system using LoRa communication and machine learning to predict and classify environmental quality in real time for remote and disaster-prone areas.
- **Solar-Powered IoT Water Quality Monitoring System Using LoRa and Machine Learning (2025)**
Designed an energy-autonomous IoT platform integrating water quality sensors, long-range communication, and ML-based real-time classification.
- **Real-Time Intelligent Fault Classifier of Three-Phase Induction Motor (ML-Based) (2025)**
Implemented a machine learning model for real-time fault detection and classification of three-phase induction motors using electrical parameters.
- **Performance Analysis of Photovoltaic Panel Using Machine Learning (2025)**
Analyzed photovoltaic performance and efficiency trends under varying environmental conditions using supervised machine learning techniques.
- **Metamaterial-Based Multiband Antenna Design (5 / 7.5 / 10.5 GHz) Using CST (2025)**
Designed and simulated a metamaterial-based multiband antenna in CST Microwave Studio, achieving resonances at 5 GHz, 7.5 GHz, and 10.5 GHz with improved bandwidth and radiation characteristics.
- **Secure PIN-Based Smart Relay Control System Using ESP32 and Web Dashboard (2025)**
Built a secure load control system with PIN authentication, ESP32-based control, and real-time monitoring through a web dashboard.
- **Smart Energy Meter Using ESP32 and Blynk Dashboard (2024)**
Developed a smart energy monitoring system with real-time visualization and remote access using a cloud-based dashboard.
- **PLC-Based Temperature Control System Design (2024)**
Designed and implemented an industrial temperature control system using PLC logic and sensor feedback.
- **Overheat Protection System for Electric Motor (2024)**
Implemented a safety system that automatically disconnects motors during overheating conditions to prevent damage.
- **Road Extraction from Satellite Images Using MATLAB (2023)**
Applied image processing techniques in MATLAB to extract road networks from satellite imagery.
- **BCD to 7-Segment Decoder Circuit (2023)**
Designed and simulated a digital logic circuit to convert BCD input into 7-segment display outputs.
- **BCD to Excess-3 Code Converter Circuit (2023)**
Designed a combinational logic circuit to convert BCD numbers into Excess-3 code representation.
- **Phone Call Detector Using Operational Amplifier (2023)**
Designed an analog circuit using an op-amp to detect nearby mobile phone incoming and outgoing calls and messages.
- **Full Flat Layout Electrical Design Using AutoCAD (2022)**
Prepared a complete residential electrical layout including lighting, power outlets, and protection devices.
- **Safe Guard Fire Alarm System (2022)**
Designed a basic fire detection and alarm system using sensors and control circuitry.
- **Agrobot 1.0 – Automated Soil Moisture Monitoring and Irrigation Robot (2022)**
Developed an agricultural robot capable of monitoring soil moisture and automatically irrigating crops as needed.

ACHIVEMENTS

- 7th Position in DIU Growing Star Program, 2022.
- 13th Position in District-Level Physics Olympiad, 2016.
- Certified organizer of the Drone Challenge Segment at the **4th International Robotics Olympiad** [2024].
- Certified coordinator of events with **DIU Robotics Club**, including IIOT Workshop [2024] and 3D Design with Autodesk Fusion Workshop [2024].
- Certified organizer of workshops with **IEEE IAS DIU Student Branch Chapter**, including Digital Marketing Workshop [2023], Machine Learning Mastery Workshop [2024], and Empowering Electric Mobility Innovation Workshop [2024].

INTERESTS

- Mobile Phones and Computer Technology
- Artificial Intelligence and Machine Learning
- IoT and Robotics
- Esports

REFERENCE

- **Dr. Tama Fouzder**
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