MD. MARUF MULLAH

B.Sc. in Mechanical Engineering · MIST

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CAREER OBJECTIVE

Motivated Mechanical Engineering graduate with a solid foundation in fluid mechanics, HVAC systems, and materials engineering. I aim to contribute to practical, real-world solutions through design, analysis, and system optimization. Alongside my core skills, I've explored Machine Learning and Artificial Intelligence to bring modern, data-driven insights into engineering tasks, making my approach both innovative and adaptable to evolving industry needs.

EDUCATION

B.Sc. in Mechanical Engineering

Apr 2021 – May 2025

Military Institute of Science and Technology (MIST)

CGPA: 3.23 / 4.00

EXPERIENCE

Management Trainee Officer (Engineer) — Assessment Program

Jul 2025

PRAN-RFL Group, Kaliganj Agro-Processing Ltd.

Kaliganj, Gazipur, Bangladesh (On-site)

- Participated in structured assessment for manufacturing operations and engineering roles.
- Observed production workflow, plant layout, and assisted in machine monitoring.
- Prepared technical and operational reports demonstrating analytical and communication skills.

Industrial Attachment

Feb 2024 – Mar 2024

IFAD Autos PLC

Dhamrai Upazila, Dhaka, Bangladesh (On-site)

- Assisted in vehicle assembly, mechanical fitting, and torque verification.
- Observed quality control procedures and assembly line balancing.
- Gained hands-on exposure to automotive manufacturing systems.

TECHNICAL SKILLS

Programming: Python, C, C++, MATLAB, HTML

Machine Learning: Scikit-learn, NumPy, Pandas

Deep Learning & CV: PyTorch, TensorFlow, YOLO, Roboflow

LLM & Gen AI: RAG, LLM Inference, HuggingFace

CAD / 3D Printing: SolidWorks, FreeCAD, Anycubic Cobra

Simulation: ANSYS, COMSOL Multiphysics

Data Visualization: Matplotlib, Seaborn, Excel, Google Sheets

Documentation: LaTeX, MS Word, Google Docs

PROJECTS

Tailstock Tool Holder Design — Mechanical

- Designed and manufactured an ergonomic tailstock die tool holder using SolidWorks and lathe machining.
- Applied CAD modeling and manufacturing processes to create a functional workshop tool.

Machine Learning & Computer Vision — ML / Deep Learning

- Developed YOLO pipelines for medical segmentation, PPE compliance monitoring, and defect classification (99.9% accuracy), streamlining annotations via Roboflow.
- Built regression models to predict surface roughness (Decision Tree yielding $R^2 = 0.85$), evaluating cutting parameters.

Smart Bluetooth Vacuum Car — Arduino / IoT

- Built an Arduino-controlled CPU-fan cleaning car with Bluetooth remote control.
- Integrated motor drivers, Bluetooth module, and vacuum mechanism for autonomous cleaning capability.

CERTIFICATIONS

- Machine Learning Specialization (Supervised Learning) — *Coursera, 2024*
- Neural Networks and Deep Learning — *Coursera, 2025*
- Mathematics for Data Science — *Simplilearn, 2025*
- Python Programming Bootcamp — *Decoders Academy, 2025*
- MATLAB Onramp — *MathWorks, 2025*
- Git Training — *Simplilearn, 2025*
- Google Sheets — *Simplilearn, 2025*
- Project-Based Excel — *Grameenphone Academy, 2025*

CO-CURRICULAR ACTIVITIES & AWARDS

Government Scholarship — PEC & JSC Examinations — 2012 & 2015

Recipient of Government Scholarships for excellence in Primary Education Completion (PEC) and Junior School Certificate (JSC) Examinations.

Science Fair Champion — Upazila Level, Raipura — 2017

Led a school team to first place by presenting an applied science project.

Various Volunteering Roles — 2015–2024

Served as Scout Volunteer, logistics/operations team for ICMEAS & MIST Job Fair (2022), and engaged in Humanitarian relief (flood/winter distribution).

Organizing Committee Member — Soccer Bot Competition, MIST — 2024

Contributed to planning, team coordination, and competition execution under MIST Robotics initiatives.

REFERENCES

Major Md. Anisur Rahman, EME
Assistant Professor, ME Dept., MIST
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Dr. Md. Sayem Hossain Bhuiyan
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