Shah Mohammad Rizvi

Dhaka, Bangladesh
Phone: 01580311881
Email: smri29.ml@gmail.com
LinkedIn: linkedin.com/in/smri29
GitHub: github.com/smri29
Portfolio: render.com/smri29

Profile Snapshot

Title: ML Engineer, Full-Stack Developer (MERN), & Researcher
Nationality: Bangladeshi
Religion: Islam
Blood Group: A+

Core Interests

- Machine Learning & Deep Learning
- Computer Vision & Image Processing
- Healthcare AI & Predictive Modeling
- MLOps & Reproducible Research
- Full-Stack MERN Applications

Key Skills

AI & Data: ML, DL, CV, NLP, EDA, Feature Eng., PCA, Scikit-Learn, Matplotlib, Seaborn, Pandas, NumPy
Programming: Python, Dart, JavaScript/TypeScript, C/C++, Java, C#, Ruby
Web: React.js, Node.js, Express.js, MongoDB, REST APIs, Tailwind

Professional Summary

CSE student at IUBAT and aspiring Machine Learning Engineer and Researcher with strong full-stack (MERN) skills. I build practical ML solutions in computer vision and healthcare, emphasizing reproducibility, interpretability, and clean MLOps. Founder & President of **CollabCircle**, a collaborative ML/DL research organization.

Experience

Jun. 2025 - Present

President, Founder & Researcher - CollabCircle Official (Full-time), Bangladesh - Hybrid
Lead a collaborative ML/DL organization. Define research roadmaps, mentor contributors, and coordinate publication pipelines across CV/healthcare topics. Drive code quality, dataset management, versioning, and model evaluation.

Oct. 2024 - Present

Student Researcher - IUBAT (Self-employed), Hybrid
Disease detection from images/tabular data, model explainability (e.g., SHAP), and robust training/evaluation workflows. Collaborate on ML studies and manuscript preparation for conferences/journals.

Selected Projects

- **CollabCircle Official Website (MERN)** - Organization site for research updates and resources.
- **Vehicle Management System (MERN)** - Admin dashboard, CRUD, auth, analytics.
- **Tomato Leaf Disease Detection (ML)** - CNN/classical baselines; eXplainability; data pipeline.
- **Heart/Parkinson's/PCOS Detection (ML)** - Tabular/voice modeling, ensembles, feature engineering.
- **Bengali Digit Recognition (DL)** - Deep CNNs for handwritten digit recognition.
- **Intel Image Detection (ML)** - CNNs for scene classification.
- **Guessing Game, Rock-Paper-Scissors (Python)** - Small projects emphasizing logic and structure.
- **Dipok Driving School (LAMP)** - PHP/MySQL portal; basic CRUD and forms.
- **Tic Tac Toe, Electricity Bill Calculator (C++)** - Algorithmic problem solving and I/O handling.

Publications

Conference Papers

Tools: Git, Deployment, Bootstrap, SQL, PHP, HTML/CSS
Soft: Leadership, Project Mgmt, Communication, Time Mgmt, EI, Collaboration
Typing: 28-30 (BN/EN)

Languages

Bangla (Native)
English (Fluent)
German (Beginner)

Education

BSc in CSE - International University of Business Agriculture and Technology (IUBAT)
CGPA: 3.84 (current, 10th semester), *Expected 2026*

HSC - BCIC College, GPA 5.00 (2020)
SSC - Bangabandhu Bidya Niketan, GPA 5.00 (2018)

Awards & Activities

Cultural Captain, Karnafuli House — BCIC College (2018–2019) - Led cultural events and teams.
Best Student Award - High School, Dhaka (2018).
Volunteer - OBHIZATRIK Foundation (2022–2024).
Participant - ICPC Dhaka Regional Preliminary Contest (2024).

Interests

Watching movies, seeing friends, and spending quality time with family.

- *Deep Learning Based Tomato Leaf Disease Classification: A Comparative Study of CNN, EfficientNetB3, and VGG16.* [IEEE ICCIT]
- *Voice-Based Parkinson's Disease Detection using SVM & XGBoost.* [IEEE QPAIN]
- *Parkinson's Disease Detection via Wasserstein-Validated Voice Signal Augmentation and Hybrid Ensemble Learning.* [IEEE COMPASCONF]
- *Explainable Machine Learning for Predicting Incident Heart Disease: A Multi-Model and Survival Analysis Approach Using SHHS Data.* [IEEE COMPASCONF]
- *Triaging IARC-Listed Chemicals in Cosmetics: A Reproducible CAS-First Pipeline with Lightweight Text Models and Explainable Ingredient Attribution.* [IEEE ICCIT]
- *PCOS Detection using Machine Learning: A Comparative Study highlighting the Pros and Cons of using Clinical Data and Image Data.* [IEEE ICCIT]
- *Bengali Digit Recognition using Novel Attention Mechanism.* [IEEE ICCIT]

Journal Articles

- *Improving Multi-Object Tracking Accuracy Under Heavy Occlusions with Deep Particle Filters.* [Springer ICIAR]
- *Enhancing Computational Performance of Particle Filter-Based Object Tracking Using Lightweight CNN Architectures.* [Elsevier CMC]

Certifications (Selected)

- **Python with Machine Learning** - Enhancing Digital Government & Economy Project (Jul 2025) [ML]
- **Kaggle Certifications** - (2024–2025): Data Visualization, Computer Vision, Intro to DL, Intermediate ML, Intro to ML, Pandas, Intro to Programming, Python [ML]
- **Machine Learning for Beginners** - Simplilearn (Jun 2025) [ML]
- **AI for Beginners** - HP LIFE (Jan 2025) [ML]
- **Artificial Intelligence Fundamentals** - IBM SkillBuild (Jan 2025) [ML]
- **3D Printing** - HP LIFE (Feb 2025)
- **Intro to Career Skills in Data Analytics** - LinkedIn Learning (Dec 2024)
- **Networking - Level A1 - 36h** - British Council (Dec 2024)
- **Introduction to CIP** - OPSWAT Academy (Dec 2024)
- **Human Rights - a tool for change** - Amnesty International (Dec 2024)
- **How to use Generative AI inside Copilot Studio** - STYAVA.DEV (Dec 2024)
- **Digital Literacy** - Futurenation (Dec 2024)
- **Charting the Azure Horizon: Unveiling the Power of the Cloud** - STYAVA.DEV (Dec 2024)

- **Building a Business Presence With Facebook Marketing** - Coursera Project Network (Jan 2025)

Training & Seminars

Training

- Machine Learning with Python - EDGE × ICT Ministry of Bangladesh (Oct 2024 — Jun 2025)
- App Development with Flutter - Ostad (May 2024 — Jan 2025)

Seminars

- Generative AI inside the Copilot Studio - Styava.dev × Microsoft (7 Nov 2024)
- Charting the Azure Horizon - Styava.dev × Microsoft (10 Dec 2024)

Last updated: August, 2025.