

Md Shamim Hasan

Machine Learning & Data Analytics | MSc Industrial Analytics, Uppsala University
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PROFILE

Final year MSc student in Industrial Analytics at Uppsala University with a BSc in Industrial & Production Engineering and a strong interest in applying AI to engineering problems. Coursework covers statistical machine learning (regression, ensembles, neural networks, CNNs), machine learning for IoT (model quantization, pruning, on-device and federated learning), simulation and optimization. Co-author of a PLoS One paper comparing machine learning and deep learning ensemble models, including models trained on synthetic data. Hands-on programmer in Python, SQL and C with 3+ years of experience building data pipelines, diagnosing data quality issues and turning analysis into clear results for stakeholders. Structured, communicative and comfortable working both independently and in multicultural teams.

WORK EXPERIENCE

IT Support Specialist (External, Remote) | SELISE

Remote

Feb 2025 to Aug 2025

- Maintained Power Automate and Power Query data pipelines for a European IT distributor, turning Dynamics 365 purchase order data into automated tracking and reminder reports.
- Traced faults in multi step data refresh chains and identified root causes in source data (for example incorrect batch timestamps), restoring reliable reporting for business users.
- Provided remote Microsoft 365 and SharePoint support to distributed, cross functional teams.

Data Analyst | LandQuire

Dhaka, Bangladesh

Jun 2023 to Jan 2025

- Built analysis and scenario evaluations to support real estate acquisition decisions, presenting structured results to leadership.
- Owned end to end data management, keeping data clean, consistent and ready for reporting and modelling.
- Built automated bots and web scraping scripts in Python to collect and structure external data.

Data Analyst | Shikkha (Pvt.) Ltd

Dhaka, Bangladesh

Jan 2023 to May 2023

- Analyzed demographic and website traffic data with Google Analytics to inform digital strategy.
- Managed data pipelines and developed Office 365 automation to reduce manual work.

Intern | British American Tobacco Bangladesh

Dhaka, Bangladesh

Apr 2022 to Jul 2022

- Contributed to product flow layout development for process improvement in manufacturing operations.
- Developed a management trainee platform using Power Apps for the Technical & Training Department.

Intern | Durjoy DSS

Dhaka, Bangladesh

Feb 2022 to Mar 2022

- Analyzed retailer and brand level data to estimate product demand and presented structured recommendations.

EDUCATION

MSc, Industrial Analytics | Uppsala University

Uppsala, Sweden

Sep 2025 to Present

Relevant coursework: Statistical Machine Learning, Machine Learning for the Internet of Things, Production Systems Modelling & Simulation, Simulation Based Optimization, Operations Research, Computer Networking

BSc, Industrial & Production Engineering | Military Institute of Science and Technology (MIST), affiliated with BUP

Dhaka, Bangladesh

Feb 2019 to Mar 2023

Higher Secondary Certificate | Adamjee Cantonment College

Dhaka, Bangladesh

Jun 2016 to Jun 2018

PUBLICATIONS & RESEARCH

[Advancing breast cancer prediction: Comparative analysis of ML models and deep learning-based multi-model ensembles on original and synthetic datasets](#)

PLoS One, Vol. 20, Issue 6, e0326221 (Public Library of Science, Jun 2025). Co-authored with Kazi Arman Ahmed, Israt Humaira, Ashiqur Rahman Khan, Mukitul Islam, Anik Roy, Mehrab Karim, Mezbah Uddin, Ashique Mohammad, Md Doulotuzzaman Xames.

- Trained and compared KNN, SVM, ANN, Random Forest, XGBoost, ensemble and AutoML models, and deep learning ensemble strategies, on original and synthetic datasets (Gaussian Copula, TVAE).
- Evaluated models with standard classification metrics and showed how ensembles and synthetic data improve prediction accuracy for diagnostic decisions.

RELEVANT PROJECTS

Production System Simulation & Multi Objective Optimization | Uppsala University (Group Project)

FACTS Analyzer, discrete event simulation

- Modelled an assembly line, justified the warm up period, identified bottlenecks and interpreted Pareto front results from multi objective optimization.

Geometric Tolerance Calculator for Holes & Shafts | Personal Project

Python

- Built a tool that computes tolerances, tolerance grades and clearances from basic size and deviation inputs, and generates Go/Not Go gauge designs.

Python Networking Tools | Personal Project

Python, TCP sockets

- Built and tested a TCP chat application, a file transfer tool with GUI and a relay server based file transfer system over LAN and VPN.

SKILLS & TOOLS

- **Machine Learning & AI:** supervised learning, regression, ensembles, neural networks, CNNs, model evaluation, synthetic data, model compression (quantization, pruning)
- **Programming:** Python, SQL, C, Git, HTML
- **Data Analysis & Visualization:** statistical analysis, Minitab, Power BI, Excel (advanced), Power Query
- **Simulation & Optimization:** discrete event simulation (FACTS Analyzer, Arena), linear programming, multi objective optimization (NSGA-II)
- **Engineering & CAD:** SolidWorks, Creo, CATIA, geometric tolerancing
- **Automation:** Power Automate, Power Apps, Microsoft 365 administration
- **Languages:** English (C1 listening, B2 reading/writing/speaking), Swedish (beginner, actively studying), Bangla (native), Hindi & Urdu (basic)

CERTIFICATIONS

- Using Python to Access Web Data, Coursera, Jun 2020
- Python Data Structures, Coursera, May 2020; Programming for Everybody (Getting Started with Python), Coursera, May 2020
- SQL for Data Science, Bohubrihi, Jul 2021
- Excel Skills for Business, Coursera, Jun 2020
- Supply Chain Logistics, Coursera, Apr 2020; New Models of Business in Society, Coursera, Apr 2020

HONOURS & AWARDS

- PTAK Prize, ISCEA Bangladesh Global Case Competition Scholarship Winner (2020)