

Muzahidul Islam

Python Developer — Data Engineer — Scientific & AI Data Processing Enthusiast

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LinkedIn — GitHub

Technical Skills

- **Programming:** Python, C/C++
- **Scientific & Data Libraries:** Pandas, NumPy, SciPy, Statsmodels, NLTK
- **Data Processing:** Data Cleaning, Handling Missing Values (NaN), Outlier Detection, Time-Series Data Alignment, Data Validation, Data Quality Checking
- **Scientific Computing:** Numerical Analysis, Scientific Data Processing
- **Backend & APIs:** FastAPI, .NET Core MVC, REST APIs, Async Programming, Swagger/OpenAPI
- **Databases:** PostgreSQL, MySQL, SQL Server, Redis
- **Cloud & DevOps:** Docker, Git, Linux
- **Other:** Technical Documentation Understanding, Analytical & Mathematical Mind, Problem Solving

Professional Experience

Junior Python Programmer, Genuine Technology and Research (GTR) – Dhaka

- Develop **Python-based data processing pipelines** for real-world datasets, ensuring accurate and clean data delivery.
- Perform **data cleaning, missing value handling (NaN), and outlier detection** using Pandas and NumPy.
- Implement **engineering and mathematical formulas into Python code** for scientific data analysis tasks.
- Design and deploy **FastAPI-based REST services** to serve processed scientific data.
- Validate and verify **data quality and numerical correctness** from multiple data sources.

Software Developer Intern, Genuine Technology and Research (GTR) – Dhaka

- Built **Python automation scripts** for data extraction, preprocessing, and ETL tasks.
- Assisted in **cleaning messy real-world datasets** and aligning time-series data.
- Performed **data validation and accuracy checking** for processed datasets.
- Read and implemented **technical documentation logic** into functional Python modules.

Key Projects

MailMind – AI-Powered Email Assistant

- Built scalable backend services using **FastAPI, Redis, PostgreSQL, Docker**.
- Designed asynchronous pipelines for **data extraction and processing automation**.
- Implemented **data validation checks** to ensure reliability of processed information.

Employee Sentiment vs Stock Performance Analysis

- Conducted **scientific data analysis** using Pandas, NumPy, and SciPy.
- Performed **time-series alignment**, correlation testing, and numerical analysis.
- Applied **data cleaning and missing value handling (NaN)** techniques on real-world datasets.
- Tools: **Python, Pandas, NumPy, SciPy, Statsmodels**.

IoT-Based Smart Energy Monitoring System (IEEE Publication)

- Implemented **engineering formulas and numerical logic** for energy data analysis.
- Processed and validated **sensor measurement datasets** for accuracy assurance.
- Published research on **scientific and engineering data processing**.

Education

Independent University, Bangladesh (IUB) – Bachelor of Science in Computer Science
Minor: Management Information Systems

Certifications

- Data Science MasterCourse – Udemy
- Linear Algebra and Calculus – Udemy
- CrewAI Automation Course
- CCNA (Module 1 & 2) – Cisco

Publications

IoT-Based Smart Energy Monitoring and Energy Demand Response System – IEEE Conference, Bhopal, India, June 2024.
<https://ieeexplore.ieee.org/document/10653605>