Arifur Rahman

Software Engineer | Python, Backend, REST APIs, SQL, AI/ML

Hooghly, West Bengal | +91 9641556790 | rahmanarifur.career@gmail.com
LinkedIn | GitHub | Portfolio

Available to join immediately | Open to relocation across India (Bengaluru, Hyderabad, Pune) and worldwide

Professional Summary

Software Engineer and 2026 B.Tech CSE graduate specializing in building production-grade Python, SQL, and AI-integrated applications. Proven ability to design REST APIs, optimize PostgreSQL databases, and deploy automated CI/CD pipelines. Completed advanced engineering simulations with Walmart Global Tech, BCG X, and Quantium. Adept at problem-solving, system design, and delivering scalable backend solutions.

Technical Skills

- **Languages:** Python, SQL, Java, JavaScript, C#, PHP, Bash
- **Backend and Web:** REST API Design, LLM API Integration, Streamlit, PHP, HTML5, CSS3, Microservices
- **Databases and Data:** PostgreSQL, MySQL, SQLite, Schema Design, Query Optimization, ETL, SQL Window Functions
- **AI/ML and GenAI:** Gemini Vision API, YOLOv8, OpenCV, Roboflow, Pandas, NumPy, Scikit-learn
- **DevOps and Testing:** Git, GitHub, Azure DevOps (CI/CD), Docker Basics, Postman, Unit Testing, SDET, Linux
- **CS Core:** Data Structures and Algorithms, OOP, DBMS, Operating Systems, Networks, System Design

Engineering Projects

Cold-Chain Pharma Spoilage and Loss Attribution Engine *Python, PostgreSQL, Gemini API, Streamlit*
Live Demo | GitHub

- Engineered an end-to-end analytics engine on a PostgreSQL star-schema warehouse, implementing vectorized Mean Kinetic Temperature computation with SQL Window Functions over IoT time-series data.
- Integrated Gemini Vision API for zero-shot anomaly detection, flagging 90%+ of at-risk shipments and reducing manual monitoring effort by 70%; deployed via Streamlit.

SmartDetect: AI-Based Image Anomaly Detection and Correction *Python, YOLOv8, OpenCV, Streamlit*
Live Demo | GitHub

- Achieved 95%+ defect detection accuracy by deploying a custom YOLOv8 model via the Roboflow API with OpenCV preprocessing inside a Streamlit web app.
- Reduced manual QA inspection effort by 80% by building an automated batch pipeline for image classification, correction suggestions, and PDF reporting.

Virtual Engineering Experience

Walmart Global Tech | *Advanced Software Engineering (via Forage)* **2026**

- Designed scalable backend components by producing UML class diagrams for data-processing architectures and implementing optimized heap-based data structures in Java.
- Strengthened data integrity by refactoring a relational schema into a normalized ER model, eliminating data redundancy and enforcing referential constraints.

BCG X | *Data Science Virtual Experience (via Forage)* **2026**

- Built a customer churn prediction pipeline encompassing EDA, data cleaning, feature engineering, and model evaluation to deliver actionable retention insights.

Quantium | *Software Engineering Virtual Experience (via Forage)* **2026**

- Developed a data-driven application module using Python scripts to transform and merge multi-source datasets, backed by automated unit tests verifying code correctness.

Education

B.Tech in Computer Science and Engineering **2022 – 2026**
Hooghly Engineering and Technology College (MAKAUT) *Percentage: 71.5%*
Coursework: Data Structures and Algorithms, OOP, DBMS, Operating Systems, Networks, System Design

Higher Secondary (WBCHSE) | Ranagarh High School *2022 | 77%*
Matriculation (WBBSE) | Ranagarh High School *2020 | 70%*

Certifications and Languages

Certifications: Ultimate Python Bootcamp: 50 Projects (Udemy) | Azure DevOps CI/CD (Udemy) | SDET C# Automation (Udemy) | SQL and Relational Databases (IBM) | Intro to Data Science (Cisco)

Languages: English, Hindi, Bengali