

MD MOFAZZAL HOSEN

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SUMMARY

Full-stack software engineer with production AI and ERP systems, building AI-native business software across Next.js/React front-ends and Python/Node back-ends on PostgreSQL. Shipping LLM and RAG features that do real work inside ERP and enterprise workflows, and turns messy real-world business processes into reliable software. Can communicate clearly with non-technical stakeholders in English, and learns unfamiliar stacks while building in them.

EXPERIENCE

Software Engineer — MAEKNIT Inc.

Apr 2026 – Present

Remote (US) — Python / Odoo ERP on PostgreSQL

- Build Python-based **Odoo ERP modules** on a PostgreSQL backend, extending live business-operations workflows for a US firm.
- Implemented an **LLM tool-calling system** that lets a model trigger real Odoo functions inside production workflows — AI performing actual business operations, not a chat demo.

Full-Stack Software Engineer — Algosoft Technologies Limited

Apr 2025 – Apr 2026

German Enterprise ERP/DMS — Export/Import Compliance & Device Tracking (Next.js / React)

- Shipped **37 Next.js/React page routes** across 8 modules, integrating 50+ REST APIs with client-side caching and error boundaries.
- Built 2 production AI features on OpenAI: a human-in-the-loop extraction tool with confidence flagging (~70% less manual drafting) and a RAG chatbot with vector-DB retrieval across 8 knowledge categories.
- Wrote **Python data pipelines** to extract and structure data from PDFs and the web, feeding automated reporting and warranty-renewal workflows.

EDUCATION

B.Sc. in Computer Science & Engineering

Apr 2022 – Jun 2026

Khulna University of Engineering & Technology (KUET) — CGPA: 3.53 / 4.00

PROJECTS

Learn — AI-Powered Learning Platform (Next.js 15 / React)

[Code](#) · [Live](#)

- Built a full-stack Next.js 15 / React app on Vercel with a **Pinecone** RAG layer — 1536-dim embeddings for semantic search, a streaming AI tutor, and role-based NextAuth.

Sentinel — Autonomous Incident-Response Agent (Java / Spring Boot)

[Code](#) · [Live](#)

- Engineered an at-least-once pipeline (Redis, RabbitMQ, **PostgreSQL**) and a guardrail-gated RAG agent that proposes but never authorizes; deployed on Azure with Dockerized CI/CD and 103 tests, 0 failures.

TravelMate — Tour-Guide Booking Platform (Laravel / MySQL)

[Code](#) · [Demo](#)

- Built an end-to-end **Laravel / MySQL** platform on a relational schema — 4 user roles, CRUD dashboard views, and booking flows across 4 service types.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, Java, C++, C, PHP, SQL, Bash

Frontend: React, Next.js (SSR/SSG, API Routes), Tailwind CSS, responsive & streaming UI

Backend & Data: Node.js, REST APIs & integrations, PostgreSQL, MySQL, MongoDB, Redis, RabbitMQ, Spring Boot, auth (JWT/OAuth/RBAC)

AI & LLM: OpenAI API, RAG, Pinecone, embeddings, LLM tool-calling, vibe coding (Codex, Cursor)

Cloud & Infra: Vercel, Azure, Docker, GitHub Actions (CI/CD), Git

Fundamentals: Data structures & algorithms, OOP & design patterns; English & Bangla communication

ACHIEVEMENTS

- **Competitive Programming:** 200+ problems on [Codeforces](#), 50+ on [LeetCode](#).

LEADERSHIP & ACTIVITIES

K-MINDS — Machine Intelligence & Data Science Community

Sep 2025 – Jul 2026

Technical Lead

HACK — Hardware Acceleration Club, KUET

Mar 2024 – Jul 2026

Assistant General Secretary

BITFEST 2025 — KUET CSE National Fest

Dec 2024 – Jan 2025

Executive Member