# Md. Navidul Hoque

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## Summary

Highly motivated and detail-oriented Backend Developer with more than 1 year of hands-on experience in building scalable, secure backend systems using **Node.js** and **NestJS**. Proficient in database design (**PostgreSQL**, **MySQL**), API development, and **event driven architecture**. Passionate about integrating AI models to build intelligent applications and skilled in writing clean, maintainable code.

## Technical Skills (Hard Skills)

* **Languages:** TypeScript, JavaScript
* **Backend Frameworks:** Node.js, Express.js, NestJS
* **Architecture & Patterns:** Microservices, REST APIs, Event-Driven Architecture
* **Databases & ORMs:** PostgreSQL, MySQL, MongoDB, Prisma ORM, Mongoose, PhpMyAdmin
* **Messaging & Queues:** Redis, BullMQ, Apache Kafka, WebSockets, Cron Jobs
* **DevOps & Cloud:** Docker, Cloudinary
* **Security & Authentication:** JWT, OAuth2, Role-Based Access Control (RBAC), Rate Limiting
* **Payments & Integrations:** Stripe Connect, OpenAI
* **Version Control & Tools:** Git, GitHub, Postman, Visual Studio Code

## Soft Skills

* Problem-Solving and Analytical Thinking
* Adaptability and Continuous Learning
* Team Collaboration and Communication
* Time Management and Task Prioritization

## Projects

**Doctor Appointment Booking System**

**Stack:** NestJS, TypeScript, PostgreSQL, Prisma ORM, Redis, BullMQ, Apache Kafka, WebSocket, Stripe Connect, Docker, Cloudinary, Cron Jobs, JWT, REST API, OpenAI

[Github Repository](https://github.com/NavidulHoque/Doctors_Appointment_Booking_System)

* Built a real-time chat and notification system using **WebSocket**, **Redis**, and **BullMQ**, handling 1,000+ concurrent users.
* Architected an asynchronous data processing system using **Apache Kafka**, efficiently handling 10000+ daily events.
* Automated appointment updates, background jobs, and activity tracking with **BullMQ** and **Cron Jobs**, reducing manual effort by 30%.
* Integrated **Stripe Connect** for secure multi-vendor payments, enabling instant payouts to 50+ doctors.
* Optimized performance with **Redis caching** and **rate limiting**, reducing API response time by 60%.
* Increased user engagement with email/SMS notifications, boosting response rates by 25%.
* Containerized with **Docker**, ensuring consistent environments with **Redis**, **PostgreSQL**, and **Kafka**.
* Integrated **OpenAI** via **MCP server** to power AI-driven chat assistance, appointment recommendations, and automated responses.

**AI-Powered Document Assistant System**

**Stack:** NestJS, TypeScript, PostgreSQL, Prisma ORM, JWT, Docker, OpenAI, Cloudinary, REST API

[GitHub Repository](https://github.com/NavidulHoque/AI_powered_document_assisstant)

* Developed AI-powered document processing backend using **NestJS**, enabling intelligent document management and retrieval.
* Integrated **OpenAI** to generate summaries and insights from uploaded documents, improving information extraction efficiency.
* Built a file upload and storage system using **Cloudinary**, supporting images, PDFs, and videos in a unified workflow.
* Containerized **PostgreSQL** with **Docker**, maintaining consistent development and deployment environments.
* Applied logging and error monitoring with **NestJS** Logger for improved debugging and system reliability.

## Experience

**Backend Software Engineer, BdCalling IT Ltd**

Dhaka, Bangladesh | Dec 2024 – Jun 2025

* Engineered robust authentication and authorization systems using **JWT** and **OAuth2** (Google, Facebook).
* Designed and optimized high-performance **REST APIs** for production, achieving 99.9% uptime.
* Enhanced backend services, improving performance of internal tools and increasing operational efficiency.
* Improved system maintainability and scalability by applying clean architecture principles.

## Education

**B.Sc. in Computer Science & Engineering — Military Institute of Science and Technology (MIST)**, 2020–2024

**HSC — Dhaka Residential Model College**, 2017–2019

**SSC — Dhaka Residential Model College**, 2015–2017

## References

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