

# Md Takiuddin

📍 Bangladesh    ✉ takiuddinahmed@gmail.com    ☎ +880 1723 100 925    🔗 <https://takiuddin.me>  
🌐 <https://github.com/takiuddinahmed>    in <https://linkedin.com/in/takiuddin-ahmed-871607b5>

*Senior Backend Engineer with 5+ years of experience building scalable microservices and cloud-native applications. Proven expertise in Python, TypeScript, Go, and modern DevOps practices. Delivered enterprise solutions for Fortune-scale companies with focus on performance, reliability, and maintainable code.*

## PROFESSIONAL EXPERIENCE

### COGNITUS CONSULTING LLC

*Senior Software Developer*

**Remote**

*November 2023–Present*

- Core contributor to LambdaX enterprise contract-lifecycle-management platform serving Fortune-scale companies
- Designed and implemented agreement-header, line-item, dataset, and modification microservices using Python (FastAPI), SQLAlchemy, and PostgreSQL
- Built Redis Streams + Kafka event propagation system sustaining 15,000+ events/sec in load tests
- Extended drag-and-drop orchestration engine with 50+ reusable action blocks, reducing legal-ops turnaround from days to hours
- Optimized SQLAlchemy queries with CTEs and proper indexing, improving contract-search latency from 750ms to <180ms (P95)
- Implemented Socket.io-based user-activity streams feeding Elasticsearch audit index for SOC-2 compliance

### GRYPE DIGITAL

*Software Developer*

**Remote**

*May 2022–November 2023*

- Led 4-developer backend team for Member Lounge SaaS platform using NestJS, TypeScript, MongoDB, and RabbitMQ
- Architected tiered subscription billing system with proration logic, Stripe integration, and automated invoicing
- Built threaded discussion forum with rich-media uploads and RabbitMQ-driven notification engine (browser, email, SMS)
- Implemented multi-factor authentication reducing account-takeover incidents to zero post-launch
- Established zero-downtime deployment strategy using Blue/Green approach on Docker Swarm, maintaining 99.9% uptime

### BUGFIXERS

*Full-Stack Developer*

**Dhaka, Bangladesh**

*March 2020–April 2022*

- Developed secure intranet desktop applications for Bangladesh Navy using Electron + React with offline capabilities
- Built real-time dashboards with Socket.io auto-refresh improving operational awareness for client administrators
- Introduced microservice decomposition with RabbitMQ event buses and Redis caching, reducing deployment time by 60%
- Implemented CI/CD pipelines on GitHub Actions and AWS CodeDeploy, shortening release cycles from weekly to daily
- Resolved 150+ critical production bugs achieving <1% open-bug rate and refactored legacy PHP/JS codebases to modern stacks

## KEY PROJECTS

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### TAXSTAR – UAE CORPORATE-TAX SAAS

*Solo Architect & Developer*

**Independent Project**

*August 2023–February 2024*

- Built end-to-end FinTech SaaS helping UAE businesses comply with federal corporate-tax rules
- Implemented rules-driven engine for automated tax calculations, forecasting, and deadline reminders
- Integrated with Xero and Zoho ERP systems eliminating manual CSV uploads and reducing onboarding effort by 90%
- Designed multi-tenant architecture ready for horizontal scaling and future VAT/payroll-tax modules

### HONEST ELITE – SOCIAL-MEDIA PLATFORM

*Full-Stack Developer*

**Independent Project**

*September 2022–March 2024*

- Developed rich-media social network with real-time chat, voice/video calls, and personalized recommendations
- Built GraphQL API on NestJS microservices with Next.js SSR frontend and WebRTC for calls
- Implemented collaborative and content-based recommender system improving feed relevancy and user engagement
- Maintained <250ms round-trip latency for messaging and calls using Redis Streams for notifications

## TECHNICAL SKILLS

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- **Languages:** Python (FastAPI, Flask), TypeScript/JavaScript (NestJS, React/Next.js, React.js), Go, SQL (PostgreSQL), NoSQL (MongoDB, Redis)
- **Cloud & DevOps:** Docker, Kubernetes, AWS (EC2, S3, Route 53), GitHub Actions, NGINX, Linux VPS
- **Messaging & Streaming:** Apache Kafka, RabbitMQ, Redis Streams, Socket.io, gRPC
- **Authentication & Security:** Keycloak, OAuth 2.0/OIDC, JWT, MFA implementations, OWASP security practices
- **Observability:** Prometheus, Elasticsearch/Kibana, Jaeger, load testing (Locust, k6)
- **AI & Data:** LangChain, scikit-learn, pandas, NumPy, Elasticsearch (BM25, k-NN)

## EDUCATION

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### RAJSHAHI UNIVERSITY OF ENGINEERING & TECHNOLOGY

*Bachelor of Science in Mechanical Engineering*

**Rajshahi, Bangladesh**

*January 2016–January 2022*

- Capstone: "Low-Cost Autonomous Line-Follower Robot for Warehouse Logistics" – 1st runner-up in RUET TechFest 2019
- Coursework: Thermodynamics, Fluid Mechanics, CAD/CAM, Control Systems, Materials Science, Industrial Automation

## LANGUAGES

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- Bangla (Native), English (Full Professional), Hindi (Limited Working)