Rakibul Hasan Dihan

Backend, Platform & AI Engineer

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EXPERIENCE

Senior Software Engineer 06/2026 – Present | Dhaka, Bangladesh

Implevista

Designed the core architecture of an AI-powered media platform, building scalable backend services, distributed caching, and AI infrastructure for high-volume content delivery.

- Designed personalized recommendation engine for OTT platforms.
- Engineered a high-performance distributed caching architecture capable of serving over 1 million users across multiple edge locations.
- Built MCP tools integrated with Retrieval-Augmented Generation (RAG) to automate AI-powered workflows.

Software Engineer 05/2025 – 06/2026 | Dhaka, Bangladesh

Implevista

Engineered a large-scale multi-tenant travel SaaS platform supporting multiple B2B and B2C products through a centralized architecture for flight booking, travel management, CRM, CMS, and business operations.

- **Lead a cross-functional team**.
- Developed serverless Data processing system that optimized speed to 70% faster with more than 2 million ERP data in GCP.
- Architected a centralized multi-tenant platform enabling multiple SaaS applications to operate under a unified management system.
- Designed and scaled a Server-Sent Events (SSE) architecture to efficiently handle high-concurrency search requests, improving real-time result delivery.
- Optimized system performance through the implementation of a strategic **caching service**.
- Implemented a secured **authentication system** with integrated **OAuth 2.0** for secure access management.
- Engineered a **DevOps pipeline incorporating multi-stage Docker builds**, significantly enhancing build efficiency and deployment automation for the system.

Junior Software Engineer 06/2024 – 04/2025 | Dhaka, Bangladesh

Implevista

Designed and implemented core features and Global Distribution System (GDS) API integrations, establishing the foundation for IV Trip's flight and hotel booking engine.

- Engineered an **architectural solution to normalize and present unified data representation layer** for disparate data sources and types from GDS & Aggregator API.
- Implemented **SOAP API solutions** to facilitate stateful, session-driven data exchange.
- Designed functionality for **dynamic data presentation** and improved user experience using React.js & Redux.
- Integrated **Redux Toolkit & RTK Query** to enhance the modules, optimizing state management and scalability across components. Also reducing loading times and optimizing data fetching for smoother user interactions.
- Standardized **Docker configuration and deployment pipelines** for facilitating smooth transitions between development and production environments.

Jr. Software Engineer Intern 02/2024 – 05/2024 | Dhaka, Bangladesh

Implevista

Multi-Vendor Service Marketplace cross-platform App(React Native)

Monolithic , multi-vendor service booking application for business and occasional events.

- Implemented core **functionalities and developed reusable React Native components**.
- Significantly improving UI consistency and accelerating front-end development.

PROJECTS

RivoCloud - Edge CDN & Object Storage
Tech: Go, NestJS, TypeScript, PostgreSQL, Redis, MinIO, NATS, ClickHouse, Kubernetes, ArgoCD, Docker
• Engineered an edge-first CDN platform featuring distributed caching, S3-compatible object storage, real-time analytics, and usage-based billing.
• Designed a multi-layer caching architecture utilizing in-memory cache, Redis, and object storage for low-latency content delivery.
• Built distributed microservices for identity, storage, CDN management, analytics, billing, and developer APIs.
• Implemented Kubernetes-based GitOps deployment pipeline with ArgoCD, GitHub Actions, and automated CI/CD workflows.

Mediflow - AI-Powered Healthcare & Telemedicine Platform
Tech: Next.js, React, TypeScript, Node.js, Express, Firebase, Firestore, LiveKit, MCP, Claude, Gemini, OpenAI, Whisper, Cloudinary
- Designed a distributed microservices architecture comprising seven independently deployable services for patient, provider, AI gateway, MCP server, and video consultation workflows.
- Built an AI-powered clinical assistant using Model Context Protocol (MCP) with secure real-time access to patient medical records.
- Implemented real-time video consultation, appointment scheduling, automatic transcription, OCR-based prescription digitization, and Firebase authentication.
- Architected a multi-LLM abstraction supporting Claude, Gemini, and OpenAI providers with streaming AI responses.

TECHNICAL SKILLS

Programming Languages
TypeScript, JavaScript, Go, C++, Python

Backend
Node.js, Express.js, NestJS, REST API, SOAP API, GraphQL

Cloud & DevOps
- **AWS:** ECS, ECR, EC2, Application Load Balancer (ALB), Amplify, Route 53, S3, CloudFront, IAM
- **Azure:** Azure App Service, Azure Container Registry (ACR), Azure DevOps
- Docker, Kubernetes (k3s), GitHub Actions, ArgoCD, CI/CD

Messaging & Infrastructure
NATS JetStream, LiveKit, Firebase Cloud Messaging, Cloudinary

Observability
Prometheus, Grafana, Loki, OpenTelemetry

Frontend
React.js, Next.js, Redux Toolkit, RTK Query

Databases & Storage
PostgreSQL, MySQL, MongoDB, Firestore, Redis, MinIO

Architecture
Microservices, Distributed Systems, Event-Driven Architecture, Multi-Tenant SaaS, Edge Computing, CDN Architecture, Caching Strategies, Identity provider(IdP)

AI & LLM
Model Context Protocol (MCP), Retrieval-Augmented Generation (RAG), OpenAI, Claude, Gemini, OpenRouter.

EDUCATION

B.Sc. in Computer Science & Engineering 2020 – 2024 | Dhaka, Bangladesh
International University of Business Agriculture and Technology
CGPA: 3.67

RESEARCH EXPERIENCE

Code Smell, Software Defect & Maintenance (Java open-source software repositories)
Under the supervision of Prof. Krishna Das

Research Technologies: Neural Networks & Deep Learning.

Comparative Analysis of Formalin Detection in Fish Using Deep Neural Networks
Publisher: IEEE

ACHIEVEMENTS

BUET CSE FEST 2023 Hackathon Winner (Best Documentation) – Web3 & Blockchain, 2023

IUBAT IT & IQ QUIZ 2023

Hult Prize -Campus Round, Impact Summit, 2021, Regional Finalist 2022

PARTICIPATIONS

HackTheVerse, on-site Web3 & Blockchain Hackathon, 2023, IIT, Dhaka University (Rank : 4th)

BUET CSE FEST 2023 Hackathon - 2023 (winner)

MUJ HackX (Senior Category) - 2023, Manipal University, Jaipur, India

ICPC Asia Dhaka Regional Preliminary Contest 2023

Intra University Programming Contests,2022 – 2023, IUBAT.

Problem-Solving: More than 800+ problems

Workshops
- KolpoKoushol 2023, (Cross-functional Team Leadership, Antidisciplinary & Imagination Engineering)
- MIST Leetcon Cyber Security Conference 2023 (Fundamentals Cyber Security)

AWARDS

Miyan Research Publication Reward-2025
Miyan Research Institute, IUBAT

Best Documentation Award: BUET CSE FEST 2023.
BUET
Awarded for exceptional documentation of **ArtBlock** by **BUET CSE FEST**. Recognized for clarity, comprehensiveness, and user-friendliness of the software project documentation.

Mentoring Appreciation: IUBAT IT Society, 2022
IUBAT

Question-setter Appreciation: IUBAT Academic Fest, 2022
IITS