

Mohit Kundu

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SUMMARY

Software Engineer with internship experience building scalable backend applications, REST APIs, AI-powered solutions, and analytics dashboards using Java, Spring Boot, Python, FastAPI, Node.js, SQL, PostgreSQL, and Power BI. Experienced in performance optimization, database design, API development, distributed systems, and software testing. Passionate about solving real-world engineering problems through clean, maintainable, and data-driven software solutions.

EXPERIENCE

Answerbase

Sep 2025 – Feb 2026

Software Engineer Intern – Founding Team

Remote

- Led the design and implementation of Redis-based caching and request validation modules as the backend owner on a 3-member engineering team building a pre-launch SaaS platform.
- Analyzed API performance using internal benchmarking and SQL-backed application metrics, optimizing REST API response times through Redis caching and request batching while documenting performance improvements for engineering reviews.
- Implemented DTO-based request validation using `class-validator`, reducing API errors and improving backend reliability.
- Collaborated with cross-functional engineering teams during architecture reviews, documenting technical decisions, supporting project planning, and improving backend integration processes.
- Developed unit and integration tests with Jest for critical backend components, improving release quality and preventing regressions.

CIT – Centre for Information Technology

Aug 2024 – Sep 2024

AI Developer Intern

Remote

- Developed a low-latency REST API for real-time face recognition using computer vision models for inference serving.
- Improved model accuracy through feature engineering, data augmentation, and hyperparameter tuning on labeled datasets.
- Optimized preprocessing, training, and inference pipelines, reducing end-to-end processing time and improving deployment efficiency.
- Created automated test suites with `pytest` to validate REST endpoints and machine learning model outputs.

PROJECTS

Real-Time Chat Backend – Spring Boot, Java, PostgreSQL, Redis Pub/Sub, Docker

Jan 2025 – Feb 2025

- Developed a Spring Boot backend supporting real-time messaging using Redis Pub/Sub for event-driven communication and PostgreSQL for persistent message storage.
- Designed and implemented 12+ REST API endpoints for chat, user management, and message retrieval with optimized database access patterns.
- Optimized PostgreSQL queries using composite indexes, improving response time for frequently accessed messaging endpoints.
- Load-tested the application with `k6` in Docker, validating stable message delivery for 100+ concurrent client connections, and automated build, test, and deployment using GitHub Actions CI/CD.

Blog API System – FastAPI, PostgreSQL, JWT, SQLAlchemy, Swagger/OpenAPI

Jul 2025 – Aug 2025

- Built a RESTful backend using FastAPI with layered service and repository architecture to improve maintainability and separation of concerns.

- Designed relational database schemas and optimized SQL queries for efficient CRUD operations and secure data access using PostgreSQL and SQLAlchemy.
- Generated technical API documentation using Swagger/OpenAPI, enabling easier integration, testing, and project collaboration across development teams.

Slooze Take-Home Assessment I – NestJS, GraphQL, Prisma, JWT, SQLite

Mar 2025 – Apr 2025

- Completed a take-home backend challenge for a Software Engineer role at Slooze, a supply-chain SaaS company, building a food ordering system backend to their specification
- Implemented 3-tier RBAC with country-scoped data access, restricting query results to a user's assigned region via query-level filtering
- Built 12+ GraphQL queries and mutations covering authentication, cart, orders, and payments, deployed live for review on Render

Slooze Take-Home Assessment II – Node.js, PostgreSQL, JWT, RBAC

Aug 2025 – Oct 2025

- Developed a backend inventory management system exposing 15+ REST APIs for inventory, commodities, and order management.
- Implemented four-level role-based access control, transactional database operations, and workflow automation for inventory updates.
- Applied schema validation and transactional writes to maintain data consistency during concurrent operations.

Brahmo Doc Intelligence – Next.js, TypeScript, Gemini API

May 2026

- Built an AI-powered legal document analysis platform that compares contracts, identifies clause-level differences, and generates structured risk assessments.
- Integrated Gemini API with rule-based validation to improve consistency and reliability of AI-generated legal recommendations.
- Deployed the application on Vercel with source code available on GitHub.

Hospital Emergency Room Analytics Dashboard – Power BI, DAX, SQL, Data Modeling

Feb 2025

- Designed an interactive Power BI dashboard to analyze emergency room operations using patient admissions, wait times, referrals, satisfaction scores, and demographic metrics.
- Built KPI cards, trend analysis, heatmaps, and demographic visualizations to monitor operational performance and identify bottlenecks.
- Created a star-schema data model and implemented DAX measures for dynamic calculations, filtering, and time-based reporting.
- Developed multi-page dashboards with drill-through navigation, slicers, and responsive reporting for monthly and consolidated operational insights.

EDUCATION

KIIT University, Bhubaneswar

2021 – 2025

Bachelor of Technology in Computer Science and Engineering

Bhubaneswar, India

- **Coursework:** Data Structures and Algorithms, Database Management Systems, Operating Systems, Computer Networks, Software Engineering, Distributed Systems

CERTIFICATIONS & TRAINING

HackerRank Software Engineer Certificate – Problem Solving, SQL, REST API · May 2026 · [Certificate](#)

AWS Academy Graduate – Cloud Foundations, Amazon Web Services · Mar 2024 · 60 hours

Artificial Intelligence Internship Certificate, Internship Studio · Sep 2024

Software Engineering Virtual Experience, JPMorgan Chase & Co. via Forage · May 2023

SKILLS

Languages: Java, Python, SQL, TypeScript, JavaScript

Backend: Spring Boot, Node.js, FastAPI, NestJS, Express.js

Databases: PostgreSQL, MySQL, MongoDB, Redis

Cloud & DevOps: Docker, AWS (EC2, S3), GitHub Actions, Git, Linux

APIs: REST APIs, GraphQL, Microservices, WebSockets, Redis Pub/Sub

Analytics: Power BI, DAX, Power Query, SQL Reporting, Dashboard Development, Data Modeling

Security: JWT Authentication, RBAC, Prisma ORM, SQLAlchemy

Testing: JUnit, Jest, pytest, Swagger/OpenAPI, Postman