

# Bidyut Kundu

Software Engineer

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## Summary

Software Engineer with 3+ years of experience designing and scaling distributed systems using Node.js and AWS. Skilled in building microservices, event-driven architectures, and high-performance APIs under heavy concurrency. Strong focus on system reliability, performance optimization, and cost-efficient backend design.

## Experience

### Conas Consulting Private Limited

Software Engineer | Pune | April 2023 – July 2026

*Tech Stack: Node.js, React.js, Express.js, PostgreSQL, MongoDB, Redis, AWS (Lambda, API Gateway, SQS, RDS, S3, CloudWatch), K6 Load testing, Docker*

- Mitigated EC2 production outage under 50K+ concurrent requests; migrated to a microservices architecture on AWS Lambda and API Gateway; validated resiliency via k6 load testing at — achieved 99.9% up-time and reduced cloud costs by ~60%.
- Built a scalable QR-based tracking system across 10+ distributed nodes using an event-driven architecture with async workers and an SQS-backed alerting pipeline; cut manual errors by ~80% and recovered ~2 hrs/day in operational efficiency.
- Transitioned legacy OTP authentication to Microsoft OAuth 2.0, enforcing MFA and JWT-based session management; eliminated in-house credential infrastructure entirely.
- Resolved a database bottleneck (~30s query latency, millions of rows) using table partitioning, composite indexing, and a Redis caching layer with a cache-aside pattern; improved API response time by 93%, from 30s to 2s.
- Improved Core Web Vitals for low-bandwidth clients by refactoring React components, adding server-side caching, and offloading PDF generation to a background service; brought LCP down from 3.5s to 2.1s.

## Skills

- **Backend:** Node.js, Express.js, REST APIs, JWT
- **Cloud & DevOps:** AWS (Lambda, API Gateway, RDS, SQS, S3, CloudWatch), Docker, CI/CD, GitHub Actions
- **Databases:** PostgreSQL, MongoDB, Redis
- **Frontend:** React.js, Next.js, Tailwind CSS
- **Languages:** JavaScript (ES6+), TypeScript, SQL

## Projects

### OpenSource UI – React/Next.js Component Library [GitHub Link](#) [Demo Link](#)

- Built an open-source library of 150+ production-ready React/Next.js components with Tailwind CSS, TypeScript, live previews, and comprehensive documentation.
- Implemented authentication, analytics, and component management features to improve developer experience and monitor platform usage.

### Codewise – AI Code Review System [GitHub Link](#) [Demo Link](#)

- Analyses GitHub commits using Google Gemini to generate code review feedback, reducing manual review effort.
- Helps developers review changes faster and keeps feedback more consistent across different code bases.

### Authscale – Secure Backend Starter CLI for Node.js [GitHub Link](#) [Demo Link](#)

- CLI tool that creates ready-to-use Express.js backend with authentication and security features, avoiding repetitive setup work.
- Saves development time and reduces chances of missing basic security configurations.

## Awards and Certificates

- [AWS Lambda Foundations](#)
- [Amazon API Gateway for Serverless Applications](#)

## Education

- **Bachelor of Commerce (B.Com)** — Bankura Sammilani College, Bankura University | July 2018 – Aug 2021 | Aggregate: 70.6%
- **Higher Secondary (Science)** — Jhantipahari High School, West Bengal Council of Higher Secondary Education | 2017 | 84%  
Subjects: Physics, Chemistry, Mathematics, Computer Application