

Rajdeep Deb

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Professional Summary

Senior Software Engineer | Solution Architect | Technical Leader with 11+ years of experience delivering scalable software systems across FinTech, InsureTech, Productivity, and Entertainment-Tech domains. Proven expertise in cloud-native architecture, big data engineering, and AI/ML integration with hands-on experience building systems used by millions globally.

I thrive in solving complex distributed systems challenges and have led initiatives around cloud migration, LLM-driven developer tooling, zero-trust security adoption, and data mesh architectures. Experienced in mentoring teams, shaping technical roadmaps, and translating business needs into engineering execution.

Core Competencies & Technical Skills

Programming: JavaScript, TypeScript, Python, Java, Scala, SQL
Frontend & Frameworks: React, Node.js, Spring Boot, GraphQL, OpenResty, SSR
Cloud & DevOps: AWS (S3, SQS, EMR, Lambda, DynamoDB), Docker, Kubernetes, Jenkins, IaC
Big Data & Data Engineering: Apache Spark, Apache Hudi, Apache Kafka, BigQuery, MongoDB, Redis, ETL Pipelines, Data Lake Architecture
AI/ML & Emerging Tech: Large Language Models (LLMs), Generative AI, Claude AI, NLP, ML Model Deployment, Prompt Engineering, Zero Trust Security
Engineering Practices: CI/CD, Microservices & Micro Frontends, Observability, Agile Scrum, Test Automation, API Design
Leadership & Collaboration: Team Mentorship, Cross-functional Collaboration, Stakeholder Communication, Technical Writing & Speaking

Professional Experience

Microsoft – Senior Software Engineer (L63)

May 2024 – Present | React.js, TypeScript, LLMs, Claude AI, AWS, CI/CD

- Integrated GitHub Copilot into Microsoft Office's deployment pipeline to enforce accessibility compliance at scale.

- Designed and deployed an LLM-powered pull request analyzer, improving code review quality and reducing manual reviewer overhead.
- Optimized React-based web applications with a hybrid JavaScript architecture, cutting page render time and improving user experience.
- Contributed to enterprise-scale CI/CD optimizations that enhanced build reliability and reduced delivery lead time.

Key Achievement: Built the foundation for AI-driven developer tooling that scaled across Office engineering orgs.

Amazon – Software Engineer II (SDE2)

Jun 2020 – May 2024 | Apache Hudi, Spark, AWS EMR, MongoDB, SQL, Node.js, Kafka

- Re-architected big data pipelines reducing latency from 24 hours to 6 minutes using geo-hashing, indexed SQL, and optimized NoSQL strategies.
- Migrated Spark jobs to Apache Hudi, improving ETL pipeline efficiency for 2PB+ datasets and lowering EMR costs by 30%.
- Designed TimeTrekker, an enterprise productivity analytics platform for workforce efficiency tracking.
- Filed a patent for a proprietary Android 2-way communication engine used in production environments.
- Built developer tooling for Android API debugging & cloud integration testing.

Key Achievement: Brought down multi-terabyte data processing times from days to minutes, saving millions in infra costs.

Concrrus – Senior Software Engineer

Oct 2019 – Jun 2020 | Android, Node.js, GraphQL, MongoDB, SQL, Jenkins

- Reduced High Touch Average Time (HTAT) by 67% through microservices optimization and data workflow redesign.
- Built a Lua-based ingress controller to enforce CSP, CORS, and CSRF policies for secure API management.
- Implemented a GraphQL gateway using mesh architecture, resolving 200+ API integration issues across teams.

Key Achievement: Transformed API reliability for an InsureTech SaaS platform, improving developer experience and platform adoption.

Paytm – Senior Software Engineer

Dec 2017 – Oct 2019 | Android, Node.js, A/B Testing, CLI Tooling

- Created an Android developer wrapper supporting API mocking, locale switching, and feature flagging for A/B testing, adopted by 100+ engineers.
- Developed a CLI-based Node.js deployment framework, reducing release overhead by 40%

and standardizing rollout practices.

Key Achievement: Improved developer velocity by building internal frameworks used across multiple teams.

GoParties – Technical Lead

Nov 2015 – Dec 2017 | Automation, Microservices, Virtualization

- Led a 15-member engineering team to build a SaaS platform for event management.
- Automated client onboarding workflows, cutting setup time from 2 days to 15 minutes with microservices.
- Introduced microservices-first principles, modernizing the product stack.

Key Achievement: Scaled the platform for thousands of event organizers and attendees.

NZT Solutions – Software Engineer

May 2014 – Oct 2015 | Multi-Tenant Architecture, UDP Streaming, A/B Testing

- Designed multi-tenant system architecture for high-volume apps.
- Implemented UDP streaming for performance-critical, low-latency data transfers.

Open Source Projects

- PPT Viewer Library for Android (GitHub): Lightweight PPT rendering engine, adopted in multiple Android apps.
- Big JSON Reader (npm): CLI tool for parsing massive JSON files efficiently.
- Express API Framework (api-ext): Scaffold for building REST APIs with reduced boilerplate.

Education & Certifications

- MITx (edX) – Data Science & Machine Learning: Making Data-Driven Decisions – Nov 2023
- M.S. University – B.Sc. in Computer Applications – Apr 2013

Leadership, Mentorship & Writing

- Mentored engineers across Microsoft, Amazon, and startups in React, system design, and data engineering.
- Speaker at internal tech forums on AI-driven developer productivity and big data architecture.
- Author of System Design Nuggets series on Medium & LinkedIn, focused on practical engineering lessons.