

Divyansh Agarwal

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SUMMARY

Backend and AI software engineer with 5+ years of professional experience and 6+ years including startup technical leadership. Owns fintech onboarding from system design to production, delivering AI automation that cut eligible-profile turnaround from 48 hours to 20 minutes. Combines Go, Python, and AWS expertise with architectural decision-making, RFC authorship, mentoring, and experience leading a team of 5.

SKILLS

Languages: Golang, Python, JavaScript, Java, SQL

Frameworks: Node.js, React, Django, Gin, FastAPI, Apache Spark, Apache Airflow

AI & Automation: AI Agents, Model Context Protocol (MCP), Workflow Orchestration, STP Automation, LLM Integration

Cloud & DevOps: AWS (Lambda, DynamoDB, API Gateway, SQS, S3, RDS, EC2), Infrastructure as Code (IaC / Serverless Framework), Docker, CI/CD

Architecture: Distributed Systems, Microservices, Scalability, Event-Driven and Pub/Sub

Databases: PostgreSQL, MySQL, MongoDB, Redis

Protocols: REST, WebSocket, WebRTC, GraphQL

Engineering: System Design, RFCs, Mentoring, Code Reviews, Concurrency, API Performance, Regression Testing

EXPERIENCE

Verto (YC W19)

 Pune, India

Software Engineer (Backend & AI Systems)

Dec 2024 - Present

- Own client-facing onboarding with an **AI-powered assistant** providing proactive guidance, real-time feedback, and country/industry-specific workflows, **cutting profile onboarding time by 40%**.
- Built a **straight-through processing (STP) pipeline** using Python, AI workflows, and AWS to automate onboarding for eligible profiles, **reducing turnaround from 48 hours to 20 minutes**.
- Built a **deep research agent** that researches applicants across public sources and flags policy-related risks for review, **cutting manual risk-review time per profile from ~24 hours to ~10 minutes** and **catching risk signals on 40% of profiles that manual review was missing**.
- Redesigned **workflow orchestration after production race conditions** degraded the assistant under concurrent load; decoupled independent stages and removed unnecessary execution-order dependencies.
- Authored **RFCs and mentored engineers** across backend and AI development.
- Used **AWS SQS and Model Context Protocol (MCP)** in backend and AI systems.
- Built a **serverless AWS WebSocket and pub/sub service**, replacing long polling to lower costs and power push notifications that raised live-session user responsiveness by 40%.
- **Rebuilt the case management system** with API optimizations and real-time notifications, **cutting response time from 100ms to 40ms** and manual support follow-ups by 20%.
- Added **biometric login (WebAuthn)** and biometric MFA, **cutting login time by 40%** and **raising MFA adoption by 30%**.

Tata Consultancy Services

Software Engineer

📍 New Delhi, India

Aug 2021 - Dec 2024

- Optimized **generative-AI backend systems** with Redis caching and better request handling, **cutting inference latency by 20%**.
- Built and maintained **REST APIs serving 500,000+ daily requests** at **25ms p99 latency** for secure enterprise communication.
- **Led a cloud data engineering project** using Apache Spark to process petabyte-scale transactional data, **cutting processing time by 50%** through workflow improvements.
- Built **10+ data pipelines** with Apache Airflow orchestration and automated regression testing, improving data quality and coverage.

Ewently

Co-Founder and Lead, Technical Development

📍 New Delhi, India

Mar 2020 - Jul 2022

- Co-founded and led an online event live-streaming platform, managing a **team of 5** and **cutting backend latency by 30%**.
- Built a scalable event ticketing system with **Node.js, GraphQL, and AWS**, holding **99.9% uptime** under thousands of concurrent users.
- Built a secure **OTP service for two-factor authentication**, **reducing unauthorized login attempts by 20%**.
- Built a video meeting system with **Python, Golang, WebRTC, RTP, and RTMP** that served **1M+ monthly sessions**.

EDUCATION

Guru Gobind Singh Indraprastha University

B.Tech, Computer Science and Engineering. CGPA 9.1 / 10.0

Aug 2017 - Aug 2021, Delhi, India

CERTIFICATIONS

AWS Certified Developer, Associate

Apr 2024 - Apr 2027

Validates designing, deploying, and debugging cloud-native applications on AWS (Lambda, DynamoDB, API Gateway, S3).

ACHIEVEMENTS & LEADERSHIP

- **Finalist, Smart India Hackathon** (Bangalore, 2019). Reached the national finals of one of the country's largest engineering hackathons.
- **Head of Web Development, Google Developers Group (DSC BVP)** (2019 - 2020). Led a team to build the chapter event platform, cutting registration time by 90% and growing registrations by 30%.
- **Swachh Bharat Internship, Govt. of India** (2019). Contributed 100 hours to community cleanliness and public-awareness drives under the Swachh Bharat Mission.

PUBLICATIONS / BLOGS

- **How to Create a Login Activity Tracker using JWT in Node.js.** A practical guide to securely tracking user sessions and login activity with JWT.
- **How to Make a Scalable OTP Service using Node.js.** Designing a rate-limited, horizontally scalable OTP service for two-factor authentication.