

Akash Singh

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EDUCATION

Bachelor of Technology in Computer Science (Software Product Engineering)

2022 - 2026

Kalvium Undergraduate Program, Lovely Professional University (LPU)

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python

Frameworks & Libraries: Node.js, Express, FastAPI, GraphQL, LangChain, LangGraph, React, Next.js, Material UI

Databases & Tools: MongoDB, SQL, Redis, Kafka, Milvus, Prisma

Other: Model Context Protocol (MCP), Agentic Workflows, GitLab CI/CD, Jest, Jira, Git, Cursor, Claude Code, Codex

EXPERIENCE

Medable (Remote)

May 2026 - Present

Software Development Engineer I, Backend

- Designed and shipped **two production AI agents** for custom backend development and notification troubleshooting; independently initiated the project and drove organization-wide adoption.
- Built an **AI orchestration agent** to automate notification delivery from Jira requirements through configuration and deployment, reducing delivery time per client implementation from **5 days to under half a day (~90%)**. Standard workflows run without developer involvement; custom workflows generate merge requests and deploy after approval.
- Co-built **Jira webhook integration** for the AI agent platform, automatically triggering root-cause analysis and fix merge requests from bug tickets; reduced debugging turnaround by ~90%.
- Introduced **configurable, event-driven notification triggers**, replacing a category of custom backend code with no-code workflows.
- Built a **TypeScript MCP server with 21+ tools** for platform configuration and own both internal MCP servers; replaced shared deployment credentials with **per-user authentication**.
- Enabled project managers to configure and deliver notifications end to end without developer support, and new engineers to contribute from day one.

Medable (Remote)

December 2024 - May 2026

Software Development Intern

- Built a **TypeScript MCP server with 33+ tools**, enabling AI agents to query logs, inspect notification pipelines, and manage application records programmatically.
- Re-architected the JavaScript notification framework into **reusable, configuration-driven components**, eliminating duplicated business logic across client implementations.
- Delivered **notification workflows and custom backend functionality for 30+ client implementations**, supporting pharmaceutical clients including GSK, AstraZeneca, AbbVie, and Novo Nordisk.
- Built **GitLab CI/CD pipelines** to automatically publish backend modules to a shared component library on merge to main, enabling reuse across client implementations; improved Jest test reporting to simplify failure diagnosis.

LinkedHash (Remote)

August 2023 - July 2024

Full Stack Developer Intern

- Developed **RESTful APIs with FastAPI** for file uploads, authentication, and chat features, improving request handling efficiency.
- Built **LLM-powered agents with LangChain** to answer stock and options queries, integrating Milvus DB for **semantic search** over user documents.
- Designed complex data tables and **reusable React components** with Material UI, reducing future UI development time by ~25%.

PROJECTS

Realtime Subscription Gateway (Realtime Backend Infrastructure) | [GitHub](#)

- Built a multi-tenant realtime event gateway serving GraphQL subscriptions over WebSocket, using Redis Pub/Sub for low-latency fan-out and Redis Streams for durable event replay from a sequence cursor.
- Handled production concerns end-to-end: per-subscriber backpressure queues, token-bucket rate limiting per tenant and topic, tenant-scoped key namespacing, Firebase JWT auth, and Prometheus metrics.

Stack: TypeScript (Node.js), GraphQL, Redis (Pub/Sub, Streams), WebSocket, Firebase Auth

AI Legal Help Chatbot (LLM Agent System) | [GitHub](#)

- Built an LLM-powered legal assistant for Constitution and IPC queries using LangGraph and a ReAct architecture with chunk-based vector search, keyword extraction, article summarization, and multi-step reasoning.

Stack: Python, FastAPI, LangChain, LangGraph, MongoDB, MilvusDB, React

Scalable Chat App (Full Stack) | [GitHub](#)

- Built a high-performance real-time chat app with room-based access, integrating Redis, Kafka, and async Node.js for scalability, with Google OAuth, media sharing, and live presence.

Stack: TypeScript (Node.js), Next.js, Express, Prisma (SQL)