Aditya Tote

Indian Citizen in Pune, India

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Summary

Backend Engineer specializing in distributed systems, financial transaction processing, and scalable API design. Experienced in building ACID-compliant ledger systems, idempotent APIs, and cloud-native backend services using Go, Python, Typescript and PostgreSQL.

Projects

Wallet Service – Ledger-Based Transaction System Repo

- Designed a double-entry ledger wallet system using Go and PostgreSQL to ensure atomic balance updates and complete transaction auditability, preventing balance drift across financial operations.
- Implemented idempotent REST API transaction processing using client-supplied request IDs to prevent duplicate credits and debits during retries, ensuring data integrity under network failures.
- Secured wallet REST API endpoints using JWT-based authentication and applied strict input validation, domain boundaries, and structured error handling for reliable financial operations.
- Containerized the service with Docker enabling consistent deployment across environments, and applied database schema design using SQLC for type-safe query generation.

HiFi — Agentic Personal Finance System Repo

- Built a FastAPI backend service as the API layer for the platform, handling prompt ingestion, request routing, Firebase Auth-based authentication, authorization, and audit logging for all client facing operations.
- Orchestrated a multi-agent financial system using Google Agent Development Kit, coordinating Trader, Tax Filing, Debt Optimization, and Compliance agents through controlled task routing and permissioned execution pipelines.
- Deployed the FastAPI API layer and agent microservices separately on Google Cloud Run and Compute Engine using Docker, enabling isolated and independently scalable execution of each backend service via CI/CD pipelines.

Untangle — AI Legal Document Simplifier Repo | Live Demo

- Built backend REST APIs for multi-stage legal document analysis workflows using TypeScript and Hono, enabling automated extraction and simplification of complex legal text at scale.
- Designed document processing pipelines coordinating file upload to object storage (Cloudflare R2), AI analysis, and result retrieval with clear API contracts, input validation, and error handling.
- Implemented secure authentication flows supporting federated login with Google Auth and credential based access, ensuring only authorized users could access processed documents.
- Set up CI/CD pipelines using GitHub Actions to automate build, test, and deployment of Cloudflare Workers, reducing manual deployment steps and enabling consistent delivery

Experience

Engineer's Cradle | Backend Developer Intern Pune (Hybrid) | Sept 2025 – Dec 2025

- Built a scalable data ingestion service in TypeScript using Bun and Hono, integrating multiple social media REST APIs to aggregate cross-platform analytics data into a PostgreSQL relational database for dashboard reporting.

- Designed normalized relational schemas for OAuth2 token lifecycle, permission scoping, and integration metadata using Kysely, enabling secure multi-account and multi-provider connections across five social platforms
- Implemented OAuth2 authorization flows with token refresh and permission management, ensuring secure and reliable third-party API access and applying structured error handling and input validation throughout.
- Developed and exposed backend REST APIs to normalize analytics data for internal dashboards, then engineered synchronization logic handling API rate limits, retries, and provider-specific inconsistencies

NextGen QuickHire | Full Stack Developer Pune (Remote) | Jan 2025 – July 2025

- Led backend development of an online assessment platform using Node.js, Express.js, and TypeScript, designing PostgreSQL database schemas and REST API architecture to support test creation, submission, evaluation, and results workflows.
- Built and tested REST APIs for the complete assessment lifecycle, applying typed validation with Zod and standardized API contracts to improve reliability, reduce frontend integration bugs, and ensure consistent workflow processing.
- Implemented a payment module supporting secure transactions and order tracking using Razorpay, enabling real-time payment processing for the e-commerce platform built alongside the assessment system.
- Designed modular backend services using PostgreSQL and MongoDB with query optimization to support extensibility across multiple platform modules.

Technical Skills

- **Languages:** Python, TypeScript, Golang, SQL
- **Backend Engineering:** REST APIs, Microservices, API Design, Backend Architecture, WebSockets, gRPC, GraphQL
- **Frameworks:** FastAPI, Node.js, Express.js, Hono
- **Databases:** PostgreSQL, MySQL, MongoDB, SQLite, Redis
- **Cloud & Infrastructure:** Google Cloud (Cloud Run, Compute Engine), AWS (S3, CloudFront), Docker, CI/CD (GitHub Actions)
- **Security:** OAuth2, JWT, API Security, Access Control
- **Tools:** Git, Postman, Prometheus, Grafana

Achievements & Competitions

- **Smart India Hackathon** — National Winner (2023)
- **Agentic AI Day (Google Cloud × Hack2Skill)** — Breakthrough Concept Award (2025)
- **CodeXCaliber, IIIT Nagpur** — Winner (2025)
- **HackFest (SAP)** — Finalist (2024)

Education

Bachelor of Engineering in Computer Engineering

JSPM's Imperial College of Engineering and Research — Expected Graduation: May 2026