

Nikhilesh Yadav

B.Tech in Computer Science and Engineering
Bengaluru, India

+91-9625373185

✉ nikhileshofficial@gmail.com

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EXPERIENCE

• Senior Fullstack Software Engineer

PersanaAI (YCW23)

June 2024 – May '25

San Francisco, USA

- **Built multiple AI Agents**—including the flagship “Quantum Agent” (20M+ req/mo) using OpenAI/Claude APIs with prompt chaining, API tool-use pipelines, **RAG architecture**, and orchestration via **Temporal.io** and **kafkajs**.
- **Co-designed and implemented a multi-agent system** to generate financial KPIs, risk flags, and narrative insights from ERP/accounting data; achieved <2s response with **streaming pipelines**, **fact/narrative memory layers**, and agent-level parallelism.
- **Rearchitected** an Express monolith into modular NestJS/Golang services with **rate limiting**, **caching**, **batching**, and **real-time streaming**; increased throughput to **1K req/s** and reduced infrastructure costs by **20%**.
- **Created interactive UIs**: Spreadsheet, Dashboards, Live Tables using React, Next.js, Chakra UI, TailwindCSS; added **live-editing**, **dynamic charts**, **widgets**; reduced P99 load time **from 5.43s to 1.78s** using **WebSocket/SSE**.
- **Implemented observability stack** (Grafana, Loki, Prometheus, OpenTelemetry); migrated workflows from BullMQ to **Temporal.io**, reducing dangling/failure tasks by **40%/15%**.
- **Led SOC 2 Type I**; drove SOC 2 Type II readiness; trained **4 engineers**, reviewed **50+ PRs**.
- **Tech Stack**: Golang, NestJS, FastAPI, Next.js, React, Chakra UI, TailwindCSS, Redux, PostgreSQL, Redis, MongoDB, Temporal.io, BullMQ, Docker, Kubernetes, Pulumi, AWS, OpenAI

• Fullstack Engineer

Fountane Inc.

Dec 2022 – May 2024

Minneapolis, USA

- **Led Parkpoolr** end-to-end with direct client interaction; **reduced GCP costs by 30%**, mentored **2 interns**.
- **Built full-stack features** using Angular, React, Node.js, Golang, and **optimized GraphQL APIs**.
- **Migrated infra to Docker Swarm**; set up **CI/CD pipelines** and improved deployment speed.
- **Integrated SSO and RBAC** with Keycloak for internal dashboards.
- **Created Slack AI agent** with Asana, Calendar, Gmail, and Keka API integrations.
- **Tech Stack**: Node.js, Golang, Angular, React, Hasura, GraphQL, Docker, Redis, GCP, GitLab CI/CD, Keycloak, Slack API

• Full Stack Developer (Intern → Engineer)

Pratilipi, 1DigitalStack.ai, MADPAT GmbH

Jan 2021 – Nov 2022

Germany, South Delhi, Bengaluru

- **Developed full-stack features** with React.js, AngularJS, Node.js API, Python, PostgreSQL, Redis.
- **Migrated AngularJS to React.js**; introduced **rest-hooks**, **Joi validations**, **Husky/CI/CD upgrades**.
- **Built secure Credential Vault** (Keycloak, OAuth2.0, JWT). Identified **credential-leak vulnerabilities**.
- **Developed analytics pipelines** using Amplitude, increasing **app installs by 160%**.
- **Automated dev environments** using Docker, Bash scripts, and .devcontainer; integrated **version control workflows** with Git, and pre-commit hooks for consistent code quality.

TECHNICAL SKILLS AND INTERESTS

Languages: JavaScript, TypeScript, Golang, C++, Python, SQL

Frontend: React.js, Vue.js, Angular, Chakra UI, TailwindCSS

Backend: Node.js, NestJS, Django, Flask, Express.js, GraphQL, Hasura, OAuth2.0, JWT, REST, RabbitMQ

Infra/Tools: Docker, GitLab CI/CD, Redis, KafkaJS, Temporal.io, AWS, GCP

Databases: PostgreSQL, MongoDB

Monitoring & Analytics: Grafana, Prometheus, OpenTelemetry, Amplitude

Soft Skills: Mentoring, Ownership, Communication, Problem Solving

PROJECTS

• 🤖 Quantum Agent – Enterprise AI Automation


PersanaAI, 2024

- **Handled 20M+ requests** with external integrations, and scalable orchestration. See Experience section.

• >_ C++ REPL – Interactive Language Runtime, TCP Proxy Server

c-repl, tcp-proxy

- **Developed full C++ interpreter** with CLI and web REPL.

- **Built parsers** (PEG.js), integrated with GCC/GDB for **step-debugging**.
 - Used worker threads, React.js frontend, Node.js backend.
 - **Built transparent TCP Proxy** in Node.js with connection logging and client authentication.
 - Focused on **socket-level extensibility and debugging capabilities**.
-  **Homelab – Personal Kubernetes Development Environment**

homelab, 2025

- **Automated infrastructure provisioning** for a personal **Kubernetes development environment** using **Terraform** and **Ansible**, engineering a **self-hosted K3s cluster** with **low-level networking (Cilium)**, **ingress (Traefik)**, and **secure remote access** via **Tailscale** (node-to-node overlay network) and **custom DNS**, deploying services via **Helm**.
- Implemented **custom managed, buildpack-based multi-arch CI/CD pipelines (Tekton, Shipwright)** for **heterogeneous (ARM64/AMD64) architectures**, alongside **secure authentication and authorization** using **Keycloak** for all **self-hosted applications**.
- **Self-hosted** a comprehensive suite of applications (e.g., **Grafana, Harbor, Minio**) for a complete **development and testing ecosystem**, complemented by a robust **observability stack (Prometheus, Loki, Tempo)** for **monitoring and logging**.

EDUCATION

•Dr. A. P. J. Abdul Kalam Technical University

B.Tech in Computer Science and Engineering

Aug 2017 – May 2021

Lucknow, Uttar Pradesh

- Coursework: DSA, OS, CN, DBMS, Software Engineering, AI, Web Technologies