

Chand Bud

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Skills

Programming Languages: Python, JavaScript/Typescript, Java, HTML/CSS
Frameworks & Libraries: FastAPI, Django, Flask, Node.js, React.js, Next.js
Cloud & DevOps: AWS, Docker, Kubernetes, CI/CD, Terraform, SST, AWS CDK
AI Tools: PyTorch, Vector Database, LangChain
Database: PostgreSQL, MySQL, DynamoDB, MongoDB, Prisma
Testing & Monitoring: PyTest, Vitest, Sentry

Experience

Software Engineer

August 2024 - February 2025

VYG.AI

Remote, US

- Resolved DB connection issues in FastAPI, **recovering 15% of leaky revenue**. Implemented connection pooling using SQLAlchemy and RDS read replicas to eliminate timeouts and race conditions.
- Built an issue escalation system with n8n and AWS SES. Leveraged GPT-4o to parse email replies and auto generate knowledge base entries, **reducing redundant support queries by 50%**.
- Architected and developed a scalable blacklist phone processor that triggers a serverless job on S3 file upload, using PostgreSQL COPY to **process over a million records in under 10 seconds**.
- Engineered a **CDC pipeline** using AWS DMS and Kinesis to stream real-time database changes, transform records, and trigger HubSpot events.

Engineer & Team Lead

September 2022 - August 2024

York IE

Gujarat, India

- Implemented backend of billing module integrating Stripe and Shopify, with APIs and scheduled jobs to handle recurring and usage based charges generating **\$5M+ ARR**.
- Led development of a migration module for **20K+ organizations** using SST Jobs (AWS Lambda + CodeBuild).
- Created SQL based pipelines for migration, with consistency checks and failover to **scale the platform to 150K+ checkouts/day**.
- Optimized event-driven workflows with AWS EventBridge and SQS, offloading database and HubSpot operations to separate microservices and **reducing API latency by 50%**.
- Constructed reusable Lambda layers using Chalice and Stripe for API development and billing, reducing redundant work across multiple projects and contributing to a **promotion to Engineer & Team Lead**.
- Enhanced system reliability by scaling AWS Elasticsearch and using backup instances, **eliminating downtime** during data backfilling and monitoring performance with CloudWatch.

Backend Engineer (Founding Team Member)

November 2020 - September 2022

Manentia AI

Gujarat, India

- Integrated machine learning models into a Django web app, processing X-ray, CT scan, and MRI images with **96% diagnostic accuracy**, adhering to healthcare standards.
- Maintained **HIPAA compliant architecture** on AWS, securely managing sensitive healthcare data for **10K+ patients**.
- Managed frontend tasks with an external team, collaborating to build a seamless user interface for the platform.
- Collaborated on strategic decisions, engaging with hospitals and partners to integrate the platform with their systems.

Projects

VecSight - Github | Python, Vector Database, Algorithms, Similarity Search

- Enhanced **KagiSearch's VectorDB with HNSW algorithm**, enabling fast and accurate ANN search performance.
- Launched and devised **hnsw-lite**, a lightweight Python package implementing the HNSW algorithm.
- Achieved at least **7x speedup** over MRPT and FAISS on large-scale vector search benchmarks.

Shorty - Github | Terraform, Python, React.js, AWS

- Built a scalable, serverless URL shortening service with **infrastructure defined as code using Terraform**, leveraging AWS Lambda, EventBridge, and API Gateway.
- Programmed a secure Python backend with JWT authentication, custom middleware, and PostgreSQL integration.
- Composed a responsive React TypeScript frontend with **real-time analytics and visualization**.

Education

Dalhousie University

September 2024 - December 2025

Master of Applied Computer Science

Halifax, NS, Canada

Parul University

July 2018 - May 2022

B.Tech in Computer Science Engineering

Gujarat, India