

SOURAV KUMAR HAZRA

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SUMMARY

Cloud Solution Architect & Full Stack Engineer with 15 years of experience in AWS, GCP, Python, Angular, React, DevOps, and CI/CD. Specialized in software architect, system design for scalable cloud architectures, Infrastructure as Code (Terraform, Serverless Framework), and automation with GitLab CI/CD. Experienced in team leadership and project delivery, mentoring cross-functional teams. Recently built Generative AI solutions (smart assistants, AI-powered FAQs, knowledge platforms) using LangChain, vector databases, and OpenAI APIs. Certified in AWS, GCP, Terraform, and Agile.

CORE SKILLS

Frontend: Angular, React.js

Backend: Python (Fast API), AWS Lambda, REST API, Microservices

Generative AI: LangChain, Vector Database- ChromaDB, Hugging Face Transformers

Cloud Platforms: AWS (EC2, S3, RDS, Lambda, VPC, IAM), GCP

CI/CD & DevOps: GitLab CI/CD, AWS Developer Tools

Infrastructure as Code: Terraform

API Management: Apigee, Swagger, Postman

Databases: MySQL, PostgreSQL, DynamoDB

Monitoring: AppDynamics, New Relic

Tools: Jira, Confluence, GitHub, Bitbucket, VS Code, SonarQube

Operating Systems: Linux, Windows

CERTIFICATIONS

- ❖ AWS Certified Solutions Architect Associate
- ❖ Google Certified Associate Cloud Engineer
- ❖ HashiCorp Certified Terraform Associate
- ❖ Atlassian Agile Project Management Professional

PROFESSIONAL EXPERIENCE

HTC Global Services - Tech Lead

Hyderabad, India | Dec 2022 – Present

- ✓ Led end-to-end development of microservice architecture using Python (FastAPI), PostgreSQL, and Terraform.
- ✓ Developed modular React.js frontend with custom UI components and lazy loading.
- ✓ Built secure and scalable API proxies with Apigee; integrated API Gateway & Lambda on AWS.

- ✓ Automated deployments with GitLab CI/CD and authored reusable Terraform modules.
- ✓ Collaborated with QA and business for sprint planning, backlog refinement, and retrospectives.

Utah Tech Labs - Senior Software Developer

Kolkata, India | Apr 2021 - Nov 2022

- ✓ Designed serverless applications with AWS Lambda, API Gateway, Cognito.
- ✓ Built cloud infrastructure (EC2, S3, VPC, Amplify) and deployed using GitLab CI/CD.
- ✓ Delivered frontend interfaces in Angular; implemented unit tests and SonarQube reports.
- ✓ Monitored production systems with AppDynamics and New Relic.

Appsbee Technology - Senior Software Developer

Kolkata, India | Sep 2014 - Mar 2021

- ✓ Architected cloud-first applications with AWS, Python, Angular, and DynamoDB.
- ✓ Designed OpenAPI specifications and performed extensive unit testing and code review.
- ✓ Led DevOps automation using GitLab pipelines and AWS Developer Tools.

Web Spiders - Application Programmer

Kolkata, India | Apr 2014 - Sep 2014

- ✓ Developed Drupal modules and hybrid mobile apps using PhoneGap and jQuery Mobile.
- ✓ Participated in client meetings for technical requirement gathering.

CyberSWIFT - Software Developer

Kolkata, India | Jun 2011 – Apr 2014

- ✓ Developed enterprise solutions in CakePHP, Magento, and vTiger CRM.
- ✓ Delivered multiple client-facing applications and conducted technical training sessions.

SimpleSoft Solutions - Software Developer

Kolkata, India | May 2010 – May 2011

- ✓ Built CMS-driven websites using PHP, MySQL, WordPress.
- ✓ Integrated third-party services like payment gateways and social APIs.

PROJECT HIGHLIGHTS

AI-Powered FAQ Assistant - Architect / Lead

- **Designed and implemented** a Generative AI-based FAQ system using **Retrieval-Augmented Generation (RAG)** to deliver intelligent, context-aware responses from PDF documents.
- Built the backend with **Python FastAPI**, integrating **LangChain**, **ChromaDB (vector database)**, and **OpenAI API** for semantic search and answer generation.

- Defined the **system architecture and data pipelines** for document ingestion, embedding generation, and retrieval flow.
- **Team Size: 2 | Tools & Tech:** Python, FastAPI, LangChain, ChromaDB, OpenAI API

Simplified Events - Architect / Lead

- **Architected and led development** of an event management platform to replace CVENT, delivering a scalable, cost-effective solution.
- Designed a **multi-layer API architecture (BFF + Microservices)** using **Python (FastAPI), PostgreSQL, Angular, and AWS Lambda**.
- Implemented **Infrastructure as Code** with **Terraform** and established automated **CI/CD pipelines** using GitLab CI.
- Oversaw a **team of 11 engineers**, driving Agile delivery and collaboration through **JIRA**.

Smarter Doorbell - Architect / Lead

- **Architected and designed the database schema** for a scalable IoT doorbell system, ensuring efficient storage, query performance, and data retention policies.
- **Designed the solution on AWS**, leveraging multiple services to handle real-time event ingestion, processing, and integration with the iOS and Android app.
- Defined **system architecture, data flow, and integration patterns**, ensuring scalability, high availability, and security across the end-to-end solution.
- **Team Size: 4 | Tools & Tech:** Python, FastAPI, Angular, AWS, PostgreSQL

Secure VPC Architecture Design - Solution Architect

- **Designed a secure VPC on AWS** to host enterprise applications with high availability.
- Planned **subnets (public, private, isolated)** across multiple Availability Zones for scalability and fault tolerance.
- Added **security layers** using Security Groups, NACLs, and AWS WAF to protect workloads.
- Enabled **private and secure communication** between services using VPC Peering.
- Configured **monitoring and logging** with CloudWatch, VPC Flow Logs, and GuardDuty for proactive security.

Solution on Monolith to Microservices - Architect / Lead

- **Architected and designed** a microservices-based system to modernize a client's monolithic application.
- Defined **cloud-native architecture** leveraging **AWS Cognito, API Gateway, Event Bridge, Lambda, RDS, DynamoDB, S3**, and event-driven workflows with **SQS/SNS**.

- Provisioned infrastructure using the **Serverless Framework** with Infrastructure as Code best practices.
- Established end-to-end **CI/CD pipelines** using **AWS Developer Tools (CodeCommit, CodeBuild, CodePipeline, CodeDeploy)** for automated, reliable deployments.
- Implemented **centralized monitoring and observability** with **CloudWatch and X-Ray**, ensuring system reliability and scalability.

EDUCATION

Master of Computer Applications (MCA)

West Bengal University of Technology | 2010