

# SAI RAKSHITH

## Senior Cloud Engineer

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## SUMMARY

**AWS Certified Solutions Architect Professional** with 3+ years of expertise in architecting and deploying **High-Availability (HA)** cloud infrastructure. Expert in **Infrastructure as Code (IaC)** using **AWS CDK**, **TypeScript**, and **Python** to automate complex environments and eliminate manual overhead. Proven track record of optimizing **CI/CD pipelines**, reducing **MTTR by 45%**, and maintaining **99.9%+ uptime** through **Serverless innovation** and **Event-Driven Architectures**. Currently pursuing a **Master of Technology in AI/ML** from **BITS Pilani**, leveraging **LLMs** to drive **Operational Excellence** and enhance engineering workflows. Specialized in **Cloud Security**, **Cost Optimization**, and **Multi-Account Governance** within **Agile** environments.

## EXPERIENCE

### Senior Cloud Engineer

#### App Mastery

📅 12/2023 - Present

- **Architected and delivered** fully automated **CI/CD workflows** using **AWS CDK (TypeScript)** and **CodePipeline**, reducing manual deployments by **95%** and increasing release velocity by **40%**.
- **Led technical code reviews** for cross-functional teams, overseeing **Merge Requests (MRs)** to ensure code quality, adherence to **AWS best practices**, and the implementation of **security hardening** principles.
- **Established enterprise-grade security** by integrating **AWS WAF**, **GuardDuty**, and **Security Hub**, achieving zero major security incidents while maintaining alignment with **OWASP Top 10** standards.
- **Implemented multi-account governance** using **AWS Control Tower** and **Organizations**, enabling secure landing zones and standardized **Service Control Policies (SCPs)** at scale.
- **Designed high-availability architectures** using **Amazon Aurora Global Databases** and **Multi-AZ clusters**, supporting 10,000+ concurrent users with optimized failover and **99.9%+ uptime**.
- Led AI-Engineering by using LLMs (ChatGPT/Gemini) in workflows, cutting debugging time and boosting prototyping.

### Cloud Engineer

#### App Mastery

📅 10/2022 - 12/2023

- **Optimized cloud observability** by integrating **AWS X-Ray** and **CloudWatch Logs Insights**, reducing **Mean-Time-To-Resolution (MTTR)** by **45%**.
- **Engineered scalable serverless functions** using **AWS Lambda (Python/Node.js)**, reducing operational overhead by **70%** and infrastructure costs by **50%** compared to traditional EC2-based deployments.
- **Enhanced resource monitoring** via **AWS Synthetics Canaries** and **EventBridge**, achieving **99.9%+ API uptime** and reducing incident detection time by **50%**.
- **Drove cost-efficiency** through tag-based allocation and **AWS Budgets**, delivering year-over-year cloud spend reduction via resource rightsizing and **Lambda Power Tuning**.
- **Developed graph database solutions** using **Amazon Neptune**, leveraging **IaC (AWS CDK)** to reduce deployment time by **50%** while ensuring high-performance, real-time relationship querying.

### Software Engineering Intern

#### Ingersoll Rand

📅 2022

- **Increased system efficiency by 15%** with automation apps using B&R Automation Studio.
- **Architected and updated application modules** with Senior Developers. Adhered to design specifications and OOAD principles.
- **Executed software versioning and alterations**, translating complex technical requirements into functional code while maintaining high standards for code quality and system reliability.

## SKILLS

### Amazon Web Services (AWS)

Cloud Native Design Serverless

Distributed Systems High Availability

Disaster Recovery

Infrastructure as Code (IaC) TypeScript

Python OWASP Top 10 CI/CD

CodePipeline GitHub Actions Git

AWS Control Tower AWS Organizations

E2E Tracing

Web Application Firewall (WAF)

Event-Driven Architecture

Operational Excellence

Cost Optimization System Design

AI Assisted Development

AI Driven Troubleshooting SQL

Cloud Security and Compliance

Object-Oriented Analysis and Design (OOAD)

## CERTIFICATIONS

### AWS Solutions Architect – Professional

Earners of this certification have an extensive understanding of designing technical strategies to accomplish specific business goals.

### AWS Solutions Architect – Associate

### AWS Developer – Associate

## BLOGS AND PUBLICATIONS

### Implementing OIDC bridge between GitHub and AWS using AWS CDK (TypeScript)

Medium

Sai Rakshith

📅 04/2025 🔗 [Link to Medium Blog](#)

Architected a secure **OIDC Identity Bridge** between **GitHub Actions** and **AWS** using **CDK**, eliminating long-lived keys through **secret-less authentication**.

## EDUCATION

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**Master of Technology (Artificial Intelligence & Machine Learning)**

**Birla Institute of Technology and Science, Pilani**

2025 - 2027

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**Bachelor of Technology (Computer Science)**

**Amrita Vishwa Vidyapeetham**

2018 - 2022

## PROJECTS

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### ECR Vulnerability Management & Alerting

11/2025

🔗 <https://github.com/concept-coding-geeks/ecr-scan-notifications>

- **Architected an event-driven security pipeline** using **AWS CDK** and **Amazon EventBridge** to automate the detection and reporting of container image vulnerabilities in real-time.
- **Developed a serverless Lambda Function** utilizing the **AWS SDK v3** to parse **Amazon Inspector** findings, providing engineering teams with actionable remediation steps and CVE identifiers.
- **Implemented an alerting system** via **Amazon SNS** with custom-formatted payloads, categorizing security threats by severity (Critical, High, Medium) for rapid incident response.
- **Enforced least-privilege security** by designing custom **IAM roles and policies**, ensuring secure inter-service communication between **AWS Lambda, SNS, and CloudWatch Logs**.
- **Improved container security posture** by integrating **AES-256 encryption** at the repository level and enabling **AWS X-Ray active tracing** for end-to-end observability of the notification flow.

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### Multi-Environment Budget Governance

09/2025

🔗 <https://github.com/concept-coding-geeks/github-actions-roles-stack>

- **Saved 15% in deployment costs** by automating multi-layer guardrails using AWS CDK across regions.
- **Architected a tiered notification system** that triggers real-time alerts at **50%, 75%, and 90%** of monthly budget consumption to prevent unexpected cloud spend.
- **Engineered dynamic resource naming** and prop-drilling logic to ensure unique, traceable resource identification for complex enterprise accounts.
- **Improved cost transparency** and accountability by establishing proactive **FinOps guardrails**, enabling teams to maintain operational excellence within predefined budgetary limits.
- Managed subscriber scalability for visibility in resource use with automated email alerts.

## TRAINING / COURSES

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### AWS Generative AI Developer Professional (Udemy)

Currently deepening expertise in building and deploying production-ready AI solutions using AWS Services like Bedrock.

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### AWS Security Specialty (Udemy)

Currently deepening expertise in advanced **Cloud Security** architectures.

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### Python Programming (Udemy)