VINAYAK CHILUKA

Senior Principal Software Engineer

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Professional Summary

Experienced and results-driven Lead Engineer with a strong background in backend systems, cloud infrastructure, and systems programming. Currently leading API and core platform development at Visible Alpha, enabling seamless integration for institutional investors through scalable and secure services. Proven track record at Amazon (via PTG) in building high-throughput microservices (10K+ RPS), optimizing AWS infrastructure, and executing secure RDS migrations. Contributed to post-trade validation systems at Morgan Stanley, ensuring accuracy and stability in financial operations. Designed and developed a custom PartClone-based remote restore system in C, handling complex edge cases in distributed environments. Skilled in Java, C, Python, AWS, SQL, Kubernetes, and CI/CD pipelines. Quick to learn, adaptable, and collaborative, with a strong interest in system software, security, and scalable distributed systems.

Experience

Senior Principal Software Engineer, 08/2024 - Present
Wissen Technology - Pune, Maharashtra

- **Designed and deployed reusable AWS CDK modules and Helm charts** supporting multi-tenant IoT platforms, significantly reducing code duplication and accelerating client onboarding.
- **Led the migration of critical production RDS databases to KMS-encrypted instances**, ensuring data security compliance with minimal downtime and clear rollback strategies.
- **Optimized AWS infrastructure costs** by analyzing RDS usage patterns and recommending Reserved Instances, saving 20–30% in annual cloud spend.
- **Improved system reliability** by building robust S3–SQS–Lambda pipelines for data ingestion and alerts, including health checks and automated SES notifications.
- **Enabled operational excellence and team productivity** through detailed architecture documentation, KT sessions, and debugging support across EKS, Elastic Beanstalk, and Active Directory-based authentication flows.

Software Developer Assistant Manager, 05/2023 - 07/2024
People Tech IT Consultancy - Hyderabad, Telangana

- **Architected and delivered scalable, client-specific IoT data pipelines** on AWS using CDK, IoT Core, SQS, Lambda, and DynamoDB—supporting real-time processing at 10K+ RPS with modular, reusable infrastructure.
- **Led secure migration of production RDS instances to KMS-encrypted environments**, implementing zero-downtime strategies and achieving full compliance with data security standards.
- **Reduced AWS operational costs by 30%** through in-depth analysis of RDS usage patterns, recommending Reserved Instances, and optimizing CloudWatch monitoring configurations.

Senior Software Engineer (Amazon Client), 11/2021 - 04/2023
People Tech IT Consultancy - Hyderabad, Telangana

- Worked on a **high-volume internal Amazon platform** handling over **10,000+ RPS**, supporting logistics and fulfillment operations at global scale.
- **Developed and optimized Java microservices** on AWS (Lambda, SQS, RDS), improving system throughput, fault tolerance, and deployment automation.
- **Reduced AWS infrastructure cost by 25%** by implementing Spot Instances, optimizing RDS configurations, and eliminating unused resources.
- **Led secure RDS-to-KMS encryption migrations** for live production databases, ensuring compliance with Amazon's data security standards with zero downtime.
- **Improved observability and incident response** by integrating CloudWatch, X-Ray, and custom metrics, achieving a **40% reduction in MTTR**.

Software Engineer, 01/2020 - 11/2021
Wissen - Mumbai, Maharashtra
- Worked on **Post-Trade Validation systems** ensuring accurate settlement and reconciliation of high-value trades, with a strong focus on data integrity and compliance.
- **Resolved several critical production issues** across trade validation pipelines, contributing to system stability and reducing downstream escalation incidents.
- **Quickly ramped up on complex internal frameworks and domain logic**, actively contributing to key modules and collaborating with global teams across New York and London.

Software Engineer, 09/2017 - 11/2019
Visible Alpha - Mumbai, Maharashtra
- **Developed and maintained core backend components** using C# and SQL to power Visible Alpha's consensus engine, enabling real-time access to granular sell-side models for over 1,500 public companies.
- **Integrated automated build and deployment pipelines using Jenkins and Git**, improving release reliability and reducing deployment time for production environments by 40%.
- **Collaborated with data analysts and financial SMEs** to normalize proprietary industry metrics into structured formats, enhancing the accuracy of pre-built comp tables used by investment teams.
- **Optimized data ingestion and transformation workflows**, reducing processing time for analyst models and increasing system throughput for high-volume institutional usage.

Software Engineer, 11/2016 - 09/2017
63 Moons - Mumbai, Maharashtra
- Provided **production support and issue resolution** for high-frequency trading systems at **63 Moons**, ensuring minimal downtime and quick turnaround for critical trading incidents.
  Collaborated with development teams to **analyze, debug, and deploy hotfixes** in a time-sensitive trading environment.

Software Engineer, 06/2015 - 11/2016
Verixo Technologies Pvt Ltd - Mumbai, Maharashtra
- **Engineered a high-performance network restore system** in C for thin clients, enabling parallel disk imaging across machines via HTTP, HTTPS, FTP, FTPS, and shared network storage (NTFS, FAT32, exFAT, ext4).
- **Implemented advanced features** like partition splitting, failure-resilient resume support, and automated multi-machine remote boot recovery, significantly reducing restore time and increasing reliability.
- **Independently handled design, coding, and optimization**, resolving complex edge cases in low-level disk operations and earning recognition as **Best Performer** for solving a long-standing deployment bottleneck.

Education

B.Tech: ECE, 04/2024
JNTUH - Hyderabad
GPA: 7.2

Awards & Honors
- Awarded "Best Organizer" for successfully leading and coordinating multiple technical and cultural events during the annual college fest.
- Recognized as a Core Committee Member of the college tech club, contributing to workshops, hackathons, and guest speaker sessions.

Extracurricular Activities
- Won 1st place in Inter-College Coding/Robotics Competition, demonstrating problem-solving skills and hands-on technical implementation.

Skills

- Team leadership
- Microservices architecture
- Java & Spring Boot Microservices

- Agile project management
- Continuous integration and deployment
- Kubernetes (EKS, Fargate) & Helm

- Ansible
- CI/CD Pipeline (Jenkins, GitHUB Actions, CodePipeline)
- Observability
- Dockers
- IaC (AWS CDK, CloudFormation, Terraform basic)
- DevOps

Certifications

- AWS Certified Solutions Architect Associate
- AWS Certified Solution Architect Professional

Languages

- **Telugu**
  Native
- **English**
  Intermediate
- **Hindi**
  Advanced

Awards

- Best Performer Award - Verixo Technologies
- Best Contributor Award – People Tech