

Rohit Vemparala

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Skills

Languages/Scripting - Java, Python, Golang, TypeScript, Rust, Bash, C++, TLA+ (modeling concurrent/distributed systems)
Frameworks - Spring, React, Flask, Apache Flink, Django
Cloud - AWS (EKS, EC2, ECS Fargate, Lambda, Cloudfront, CloudWatch, Route53, GuardDuty, ALB), Azure (AKS, Azure VMs)
Orchestration/Containerization - Kubernetes, Operators, Docker, Helm charts, AWS ECR
Workflow Orchestration/Data Pipelines - Apache Flink, Apache Airflow, Kafka, Spark, Hadoop, AWS EMR, dbt, RabbitMQ, Kinesis
Devops Tools - Snyk, SonarQube, Chaos Monkey, Gitlab CI/CD, Jenkins, CircleCI, Github Actions, ArgoCD
Observability/Monitoring - AWS OpenSearch, ELK, FluentBit, Datadog, Prometheus, Grafana, OpenTelemetry, PagerDuty, Zabbix
Databases - SQL (PostgreSQL, Amazon Aurora, MySQL, SQLite); NoSQL (DynamoDB, RocksDB, MongoDB)
Infrastructure As Code/Configuration Management - Terraform, AWS CloudFormation, AWS SAM, Ansible, Puppet
Networking - NGINX, Traefik, HAProxy, AWS API Gateway, Kong
Certificate - [Microsoft Certified - Azure Fundamentals](#)

Work Experience

Boston University (Boston, MA)

Research Fellow

Jan 2025 - Present

- Automate document parsing on air gapped cluster for thousands of documents with ML (**Donut** - SWIN Transformer, **docTR**) and **Python** (Pandas, Numpy, CV2), fine-tuned on a **GPU** cluster with synthetic dataset generated via script, achieved **94%** accuracy

Protium (Bangalore, KA)

Associate Vice President (Senior Devops Engineer)

Jan 2022 - Aug 2023

- Authored several **Golang** binaries, wrote various **Powershell**, **Python** and **Bash** scripts automating various tasks
- Developed **Flask** backend with **AWS OpenSearch** - processing millions of records in milliseconds on **Kubernetes**
- Maintained **Kubernetes** clusters with **AWS CDK**, migrate various services/stacks with **Helm**, **Docker** and **Gitlab CI/CD**
- Led cost-optimization effort achieving major cost savings of **\$10,000** monthly for cloud infrastructure
- Implemented **SAST** and **Snyk** in **GitLab CI** workflows to enforce secure coding practices and continuously monitor third-party dependencies for known vulnerabilities
- Architect cloud infrastructure with Infrastructure as Code - **Terraform**, **AWS Cloudformation** and **AWS SAM**
- Monitor **VPC** flow logs to optimize various aspects (minimize cross-AZ data-transfer cost, monitor traffic)
- Handled security hardening (**CIS 1.4**) - **WAF**, **AWS SSO** with **Active Directory**, automated infrastructure patching (**Ansible**)

Publicis Sapient (Bangalore, KA)

Associate Software Development Engineer 1

Jul 2020 - Dec 2021

- Developed various rest-apis, microservices (**Spring**, **React**) at Goldman Sachs (Transaction Banking)
- Processed millions of real-time events (**Apache Flink**) on **AWS ECS Fargate** - from **Apache Kafka** topics, with storage in **Amazon Aurora DB** and consumer lag alerting (**Datadog**, **PagerDuty**)
- Developed a real-time visualization application with reactive architecture with **Spring Webflux**, **HTTP SSE**, **React** and **MongoDB**

Education

Boston University

MS in Computer Science (spec. Data-Centric Computing)

GPA: 3.79/4.0

2023 - 2025

Vellore Institute of Technology

BTech in Computer Science and Engineering

GPA: 8.65/10

2016 - 2020

Projects

Custom FS Syncer: Developed a file system tracker (**Go**) using Linux **inotify** watchers for a tool on **Kubernetes**, sync with **S3** bucket and receive commands from a **Gitlab** Pipeline (versioning, rollback, deployment, manual S3 sync)

Epidemic Engine: Develop an ETL pipeline for analyzing health-related data to predict potential health risks from a **Kafka** topic, batch analysis with **Hadoop** and anomaly detection with **Apache Spark** running on **Kubernetes**

Data Processing Automation: Automate batch job execution of various ETL pipelines sourcing data from various sources (**Kafka** Topics, **AWS SES**, **S3**, **Postgres**) using **Apache Airflow**, develop DAGs to deploy tasks to **Amazon ECS Fargate**