# **Rohit Vemparala**

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#### Education

Boston University 2023-2025

MS in Computer Science (spec. Data-Centric Computing) GPA: 3.79

Courses: Distributed Systems (Teaching Assistant), Data Systems Architecture, Streaming Systems, Data Engineering

## **Work Experience**

## Cloud Services Intern - Staples Inc. (Framingham, MA)

Jun 2024 - Aug 2024

- Provide operational support for all Staples Cloud Infrastructure hosted on Azure (Azure Kubernetes Services).
- Automating Linux (RHEL, CentOS) and Windows OS patching with Puppet, AKS engine upgrade (ArgoCD)

# Senior Devops Engineer (Associate Vice President) - Protium

Jan 2022 - Aug 2023

- Authored several Golang binaries, wrote various Powershell, Python and Bash scripts automating various tasks
- Developed an Elasticsearch backend (AWS OpenSearch, AWS Lambda, Cloudwatch) for processing millions of records in milliseconds - with a Flask application providing various REST APIs and Postgres DB (Amazon Aurora)
- Maintained Kubernetes clusters with AWS CDK migrate various services using Helm, Docker and Gitlab CI/CD
- Led cost-optimization effort achieving major cost savings of \$10000 monthly for cloud infrastructure
- Architect cloud infrastructure via Infrastructure as Code Terraform, AWS Cloudformation and AWS SAM
- Addressed various security-related items (CIS 1.4, AWS Foundational Security), single sign-on with AWS SSO integrated with on-prem Active Directory, automated infrastructure patching with Ansible and observability with OpenTelemetry Agent (OTEL), Kibana and AWS CloudWatch

# Associate Software Development Engineer 1 – Publicis Sapient

Jul 2020 - Dec 2021

- Developed various microservices with Spring, Java, Maven (REST API) and React, for a business activity
  monitoring system at Goldman Sachs (Transaction Banking) with CDN (AWS CloudFront)
- Wrote a real-time processing (Apache Flink) application with AWS S3 for checkpointing, running on AWS ECS
  Fargate processing millions of events from multiple Apache Kafka topics, storing results in Amazon Aurora DB
  and observability (consumer lag) with Datadog and PagerDuty
- Developed a proof-of-concept real-time visualization application built with a reactive architecture using Spring Webflux, HTTP Server-Sent Events (SSE) and React (RxJS) with MongoDB change streams

#### Certificates

- Microsoft Certified Azure Fundamentals
- Research Paper Parallelizing Image Encryption Algorithm for Wireless Sensor Networks
- Climate Innovation Challenge Won \$2500 prize for exceptional climate-focused innovation at BU.

## **Projects**

**Custom FS Syncer:** Developed a file system tracker daemon in **Golang** using Linux **INOTIFY** watchers for an opensource tool deployed on **Kubernetes** in a multi-tenancy setup. It also had a rollback system for changes and could sync with an **S3** bucket and version control and receive commands from a **Gitlab** Pipeline

**Secure Infra Access:** Designed **Golang** application to provide access to private networks to external vendors using a combination of tunneling (**AWS SSM**, **Squid**) and reverse proxy (**Traefik**) with identity management (**AWS IAM**, **AD**)

**Data Processing Automation**: Automate batch job execution of an organization's various data processing scripts and ETL pipelines that ran 24/7 sourcing data from various sources (**Kafka** Topics, **AWS SES**, **S3**, **Postgres**) using **Apache Airflow** and develop DAG to deploy tasks to **Amazon ECS Fargate**