

Aishwarya Naidu Puthotta

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EDUCATION

Carnegie Mellon University

May 2022 – December 2023

Master of Science in Information Networking **GPA: 3.69/4.0**

Pittsburgh, PA

Relevant Coursework: Cloud Computing, Distributed Systems, Computer Systems, Storage Systems, Embedded Systems, Computer Networks, Information Security, Secure Coding, Cyber Risk Modeling, DevOps and Continuous Integration

BMS College of Engineering

August 2016 – August 2020

Bachelor of Engineering in Information Science and Engineering **GPA: 9.08/10.0**

Bangalore, India

EXPERIENCE

Site Reliability Engineer Intern

May 2023 – August 2023

Perfx Inc.

San Diego, CA

- Achieved a **20% reduction in production downtime** by introducing an ECS Anywhere task restart pipeline
- Led migration of deployment pipelines from AWS CDK v1 to CDK v2
- Troubleshoot infrastructure issues in development environment, boosting development speed by 25%
- Enhanced access management security by transitioning AWS accounts in organization from IAM to Identity Center
- Strengthened security measures by identifying non-admin access permissions required for managing deployments

DevOps Engineer

July 2020 – May 2022

Directi

Bangalore, India

- Designed and deployed applications utilizing several AWS services in multiple regions focused on high availability and fault tolerance
- Engineered an end-to-end automation system, reducing mail servers scaling time from **30 minutes to 5 minutes**
- Addressed a key business challenge by setting up a mail relay server, enabling controlled redirection of mail traffic
- Built internal tools and dashboards for automating access management, server management, and data collections
- Administered operations and coordinated fixed for production outages, ensuring right performance and scaling of AWS/Linux infrastructure stack for 300,000+ users

DevOps Intern

January 2020 – July 2020

Directi

Bangalore, India

- Developed a pipeline for converting unstructured mail logs from SMTP servers into structured mail transactions
- Reduced latency for customer support, decreasing mail transactions query resolution time from **hours to minutes**
- Equipped teams with analytics generated through the pipelines, enabling data-driven decisions

PROJECTS

CloudFS | C++

- A hybrid FUSE-based file system that spans between SSD and S3 to provide best of both worlds: fast access of SSD and unlimited storage of cloud. Implemented features like de-duplication, caching and ability to take snapshots.

Twitter Analytics Microservice | Go, Kubernetes, MySQL

- A RESTful service on EKS and with data on AWS RDS to find interaction score between two users and most used phrases on Twitter. Implemented horizontal scaling, connection pooling, and concurrency for maximizing RPS.

RAFT | C

- A RAFT-based distributed consensus algorithm in Golang for replicating log entries among a group of nodes to ensure fault-tolerance. Implemented mechanisms for heartbeats, leader election, voting, appending log entities, and backtracking during conflicts between leader and followers.

CI/CD Pipeline | YAML, Bash

- Provisioned and built a fully automated CI/CD pipeline using Jenkins, SonarQube for static analysis of the code and visualized built process using BlueOcean. Utilized Ansible to deploy application to web sever

TECHNICAL SKILLS

Languages, Frameworks & Databases: Python, C, C++, Go, Java, Bash, SQL, React, Flask, MySQL, Redis

Cloud & Containerization: AWS (Proficient), GCP (Beginner), Azure (Beginner), Docker, Kubernetes, Helm

DevOps: Git, Jenkins, Terraform, SaltStack, Prometheus, Grafana, ELK Stack

Networking: DNS, TCP, UDP, SMTP, IMAP, POP, HTTP, HTTPS, TCP/IP