

YELCHURI DINESH

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EDUCATION

Northeastern University, GPA 3.85/4.00
Master of Science, Information Systems

Boston, MA
April 2024

Vellore Institute of Technology
Bachelor of Technology, Electronics and Communication Engineering

Vellore, India
April 2019

TECHNICAL SKILLS

Programming Languages and Databases: Java, Python, Go, C++, Postgres, MySQL, MongoDB
Web Technologies : HTML5, CSS, JavaScript, Node.js, Spring boot, Typescript, React.Js, Bootstrap
Developer Tools: Linux, Bash, GIT, Terraform, Ansible, Jenkins, Groovy, Vs code, Jira, Helm charts
Fundamentals: HTTP , DNS, TCP/IP, NAT, VPN, Data Structures, DevOps, Linux Networking
Cloud Technologies : VPC, EC2, EKS, ECS, S3, RDS, Docker, Kubernetes, GCP, GKE, Prometheus, Grafana

PROFESSIONAL WORK EXPERIENCE

AMDOCS- Software Developer, SRE

Pune, India, May 2019 - Aug 2022

- Boosted operational efficiency by optimizing code logic for call record segregation, achieving **60%** faster processing
- Assisted in scaling a billing system's capacity with auto-scaling and load balancers, enhancing throughput by **40%**
- Created **RESTful APIs** using **NodeJs** for ATOM IQ to enhance the data retrieval and designed various little dashboards. It accelerated the billing and invoicing for **2M** subscribers
- Assisted in transitioning a legacy system to AWS microservices, improving system efficiency by **70%**
- Implemented a **Prometheus** custom metrics collector to scrape the applications and translate it into K8s format using Helm custom metrics adapter. this increased metrics accuracy by **50%**
- Built a **k8s** Pods Autoscaler from scratch using collected metrics on pods and this increased response time by **30%**
- Supported and maintained multi-cloud environments, automating tasks at scale with **jenkins CI/CD pipelines**, **Docker**, and **Kubernetes**, reducing deployment times by **50%**
- Optimized resource allocation using **k8s resource quotas**, resulting in a **40%** reduction in **space** and **memory** utilization
- Designed and deployed robust **network policies** and **RBAC configurations** within **K8S** clusters for enhanced security
- Enhanced service quality by developing and integrating **service level objectives (SLOs)** and indicators (**SLIs**), ensuring operational excellence and maintaining **98% SLA** accuracy
- Identified and resolved performance and stability issues, contributed to RCA's for production-level incidents

ACADEMIC PROJECTS

CLOUD-NATIVE INFRASTRUCTURE, [Github](#) Northeastern University

Aug-Dec 2023

- Developed a backend application using **NodeJs** with HTTP check API's, automated **GitHub releases** with **Jenkins**.
- Built a private, regional, multi-zone **GKE kubernetes** cluster using **Terraform** for infrastructure automation
- Deployed application using **helm charts**, enhancing Kubernetes scalability with a reduced deployment time of **10 mins**
- Integrated application to create a **custom resource(CR)** for every API request and **Kube-Builder** to create a Custom Operator that generates **Custom Resource Definition (CRD)**. The operator then acts on these CRs, creating a **Cron Job**
- Designed a highly available **Kafka** cluster with **3** partitions. The Cron Job publishes the results of HTTP checks to a **Kafka producer** . **Kafka consumer** then publishes the data into a different **database**
- Incorporated **Istio** service mesh, leveraging its addons, for enhanced **monitoring** and **observability**

E-COMMERCE PLATFORM WITH AWS INFRASTRUCTURE AND SERVICES

Northeastern University [Github - Backend](#) [Github - AWS Infrastructure](#)

Jan-May 2023

- Built a custom AMI for a web application using **Packer**, with all necessary dependencies and **systemd** service file, resulting in **99%** automated startup of **EC2** instances and saving **90%** of manual work with user-data scripts
- Deployed production-ready infrastructure including **auto-scaling groups**, **load balancers**, **RDS** instances and **CloudWatch alarms** across multiple **AZ** zones, succeeding with **99.99%** uptime and seamless horizontal scaling
- Established **GitHub Actions** for checking unit test cases and building AMI's, **Route53** for **DNS hosting**