DINESH SAI BODALA

Athens, GA 30605

✉ dineshbodala01@gmail.com · in linkedin.com/in/dinesh-bodala · ⌗ github.com/dineshbodala

EDUCATION

Masters in Computer Science   Jan 2023 - Dec 2024
University Of Georgia, GPA: 3.84   *Athens, GA*

B.Tech in Electronics and Communication Engineering   Jul 2018 - Jul 2022
Manipal University   *Jaipur, India*

TECHNICAL SKILLS

Languages: Python, Go, HTML, CSS, JavaScript, SQL
Frameworks: Django, Flask, FastAPI, OpenFaaS, Fission
Platforms: Ubuntu, CentOS, Alpine Linux, Windows
Tools: Docker, Kubernetes, Jenkins, Ansible, ArgoCD, Grafana, Terraform, ELK Stack
Databases: SQLite, MySQL, MongoDB
Cloud: AWS, Azure, Openstack

EXPERIENCE

Graduate Student Researcher   Jan 2023 - Present
Cloud Lab - University Of Georgia   *Athens, GA*

- Administered a 10 node Kubernetes cluster, optimized deployments with YAML files, and achieved nearly 0% downtime
- Built centralized logging using ELK stack, optimized monitoring and alerting by 75% using Prometheus and Grafana
- Implemented GitOps using ArgoCD to automate deployment and ensure 100% synchronization of Kubernetes manifests
- Enhanced Kubernetes security by integrating Cilium (eBPF) and creating network policies for Layer 7 access control
- Delivered a hybrid cloud solution with EKS and ECS Anywhere for container management across AWS and on-premises
- Migrated multi-terabyte on-premises datasets to S3 via AWS DataSync and MySQL databases to RDS using AWS DMS
- Created Ansible playbooks to automate environment setup on 7 Linux servers reducing setup time by 95%
- Deployed OpenStack on bare-metal CentOS server and provisioned VMs to ensure ideal performance and availability
- Managed a Terraform monorepo to deploy infrastructure as code (IaC) across OpenStack and AWS for multiple projects

Graduate Research Assistant   May 2023 - Jul 2023
University Of Georgia   *Athens, GA*

- Deployed federated learning models using Kubernetes, Python, Docker, OpenFaaS and OpenFL
- Converted Flask based services to FastAPI and GoLang achieving a 3-5x average performance rise through asynchronous processing and concurrency
- Configured a private Docker registry, integrated it with Jenkins pipelines for enhancing image workflows and versioning
- Programmed custom Continuous Integration (CI) Jenkins templates reducing duplication of pipeline code by 85%
- Implemented an AWS Lambda like function in Python using OpenFaaS for Discord notifications enabling real time alert

Software Engineer Intern   Feb 2022 - Aug 2022
Ericsson India   *Remote*

- Trained in Linux, Python, Network Protocols(TCP, UDP, NAT, DHCP, DNS), Software Testing
- Worked in an Agile environment as part of the Telstra, Australia end-to-end testing team
- Developed Shell and Python scripts to automate SDP trace verification, leading to a 90% reduction in verification time
- Used SOAPUI to test 500+ cases for billing, rating, charging, and receivables via RESTful APIs

PROJECTS

Distributed Hyperparameter Tuning Using Fission | *Python, Fission, MongoDB, Docker*   Sept 2023 - Oct 2024
- Leveraged Fission, a serverless framework on Kubernetes, for distributed hyperparameter tuning in machine learning
- Reduced tuning time by 30%-50% through parallelization with GPU access and load-balanced container deployments
- Scaled solutions to handle datasets and models 2x larger while maintaining optimal performance and handling failure through checkpointing

UGA Bookstore | *Django, SQLite, Docker, Jenkins, AWS EC2, AWS Elastic Beanstalk*   May 2023 - Jun 2023
- Created and hosted a Django-based Online Bookstore on AWS implementing all major features
- Implemented a CI/CD pipeline using jenkins resulting in a significant reduction in deployment time

MetricSight | *Grafana, Python, MySQL, Linux*   Apr 2023
- Developed a Python script to collect major metrics from 7 servers and update a MySQL database every 1 minute
- Utilized the collected data to create Grafana dashboards for real-time server metric visualization

CERTIFICATIONS

Certified Kubernetes Administrator (CKA)