Nikhila Madhunala

nikhilamadhunala01@gmail.com | 304-460-5482 | linkedin.com/in/nikhila-madhunala

Professional Summary

MLOps Engineer skilled in Python, Docker, and Kubernetes with expertise in SageMaker, Kubeflow & MLflow. Experienced in building ML platforms, automating monitoring, and deploying multi-cloud solutions that cut costs and improve reliability.

Education

Master's in Business Analytics
University of North Texas, Denton, TX – December 2024

Bachelor of Technology in Computer Science
CMR College of Engineering and Technology, India – August 2021

Skills & Technologies

Programming: Python, Java, Go, Django, Flask, Kubernetes, Docker

Data Engineering: Feature engineering, model monitoring, model training

Databases: DynamoDB, MongoDB, PostgreSQL

Cloud: Amazon Web Services (SageMaker, S3, Glue), Google Cloud Platform, Microsoft Azure

DevOps: Kubeflow, MLflow, MLOps, CI/CD pipelines, Terraform

Analytics/ML: Machine learning, deep learning, computer vision, natural language processing, time series

Practices: Collaboration, communication, leadership, observability, optimization, research

Professional Experience

MLOps Engineer Intern
Next Era Path *Feb 2025 – Present*

- Faced long deployment cycles slowing product releases. Designed a company-wide ML platform with Kubeflow and MLflow. Reduced deployment time by 60% and increased reproducibility across teams.
- Collaborated with data scientists to standardize experiment tracking. Enabled better comparison of results and accelerated iteration speed.
- Led internal workshops to mentor engineers on MLOps best practices. Improved adoption of modern workflows and built team capability.
- Documented platform architecture for scalability and reuse. Supported onboarding and knowledge transfer across departments.

MLOps Engineer
Infosys (Client: Westpac) *Jan 2021 – Dec 2022*

- Built automated monitoring pipelines using SageMaker and CloudWatch to detect drift. Triggered retraining automatically and improved model reliability in production.
- Implemented feature engineering services for online and offline pipelines. Ensured consistency between training and inference environments.
- Optimized retraining workflows with CI/CD pipelines and Terraform. Increased operational efficiency while maintaining reliability.
- Partnered with stakeholders to track KPIs from monitoring outputs. Ensured models remained aligned with business needs.

MLOps Engineer Intern
Powersoft Global Pvt Ltd, India *May 2020 – Aug 2021*

- Orchestrated deployments across AWS, Azure, and GCP to balance costs and ensure high availability. Enabled flexibility for critical workloads.
- Developed Docker-based model serving orchestrated with Kubernetes. Delivered auto-scaling and resilience under peak user loads.
- Optimized compute usage with right-sizing and spot instances. Achieved 25% cost savings in infrastructure spend.
- Mentored engineers on Terraform and container orchestration. Strengthened the team's ability to manage multi-cloud systems.

PROJECTS

Capstone: Predicting Vehicle Recalls from Complaint Data Aug 2024 – Dec 2024
Inherited fragmented data pipelines across AWS, Azure, and GCP that caused duplication of effort. Consolidated infrastructure into unified pipelines for training and deployment. Delivered a single platform that improved scalability and reduced maintenance costs.
Implemented CI/CD pipelines integrating Kubeflow and MLflow for continuous training and deployment cycles. Automated testing, validation, and release approvals. Significantly shortened model release cycles and increased business agility.
Drove adoption of observability practices by integrating monitoring with Prometheus and Grafana. Enabled teams to proactively track model drift and infrastructure health. Reduced time-to-detect and resolve issues, enhancing reliability.
Acted as a mentor for engineers transitioning into MLOps roles. Provided hands-on guidance in containerization, distributed computing, and cloud cost optimization. Built a knowledge-sharing culture that elevated overall technical maturity.