# Om Prakash Swain

## Summary

Cloud & DevOps Engineer with hands-on experience in AWS, Docker, Kubernetes, Terraform, and CI/CD pipelines. Skilled in deploying and monitoring ML models, automating workflows, and building scalable cloud infrastructure. Passionate about optimizing deployments and ensuring high system reliability.

## Education

**NIST University** 

Nov 2023 - Present

B. Tech in Computer Science and Engineering

Berhampur, Odisha

Polasara, Odisha

Coursework: Data Structures, Machine Learning, Cloud Computing, Operating Systems, DBMS

Polasara Science College

Saibani Nodal High School

May 2020 – May 2022

Intermediate (CHSE)

May 2018 - May 2020

Matriculation (BSE)

 $Ganjam,\ Odisha$ 

## Experience

### **Cloud Computing Intern**

May 2025 - Jun 2025

NIST University

Odisha, India

- Designed and managed cloud infrastructure using AWS EC2, S3, IAM for deploying ML and web applications.
- Automated CI/CD pipelines using **GitHub Actions** and **Docker**, reducing deployment time by 40%.
- Implemented monitoring and logging for deployed applications using AWS CloudWatch and dashboards.

### **Projects**

End-to-End ML Model Deployment with CI/CD (AWS EC2, Docker, GitHub Actions, Flask)

Aug 2025

- Trained predictive ML model using **Scikit-learn** and containerized it with **Docker**.
- Built CI/CD pipeline using **GitHub Actions** to automate testing and deployment on **AWS EC2**.

Real-Time Sentiment Analysis API (Python, FastAPI, AWS Lambda, Terraform)

Jul 2025

- Developed REST API for real-time sentiment analysis using NLP techniques.
- Deployed serverless API on AWS Lambda with API Gateway and automated infrastructure using Terraform.

MLOps Pipeline for Model Training & Monitoring (MLflow, Docker, Jenkins, AWS S3, SageMaker) Jun 2025

- Created reproducible MLOps pipeline using MLflow for model training and versioning.
- Automated build and deployment using Jenkins pipelines, storing artifacts on AWS S3 and deploying on SageMaker.

Cloud-Based Image Classification App (TensorFlow, Flask, Docker, Kubernetes, AWS EKS)

May 2025

- Developed CNN-based image classifier using TensorFlow and containerized with Docker.
- Deployed on AWS EKS with auto-scaling and load balancing.

Automated Data Pipeline for AI Model Training (Apache Airflow, AWS S3, Python, EC2)

Apr 2025

- Automated data ingestion and preprocessing using Apache Airflow DAGs.
- Stored datasets on AWS S3 and triggered scheduled model retraining on EC2.

#### Technical Skills

- Cloud & DevOps: AWS (EC2, S3, Lambda, SageMaker, EKS, IAM), Docker, Kubernetes, Jenkins, GitHub Actions, Terraform
- AI/ML: Scikit-learn, TensorFlow, PyTorch, Pandas, NumPy, OpenCV
- Programming & Scripting: Python, Bash, SQL, YAML, JSON
- Data & Monitoring: Power BI, Tableau, Prometheus, Grafana
- Concepts: CI/CD pipelines, Infrastructure as Code (IaC), MLOps, Cloud Security, Version Control (Git)

## Certifications

- AWS Academy Cloud Foundations Amazon Web Services (2024)
- Machine Learning with Python Coursera (2024)
- (Optional) AWS Certified Solutions Architect / Developer (In Progress)
- (Optional) Terraform Associate (In Progress)

## Leadership & Extracurricular

Core Member Sep 2024 – Present

NIST Cloud Computing Club

 $Berhampur,\ Odisha$ 

- Led 5+ cloud workshops and hackathons for 300+ students, mentoring on AWS, Docker, and Kubernetes.
- Coordinated 30+ technical workshops, facilitating sessions with industry experts.