Muhammad Muneeb Ur Rehman

ML/AI | DevOps | DevSecOps Engineer

McLean VA | muneebchaudhry2000@gmail.com | +1 (279) - 254 - 5558

linkedIn | Github | Portfolio Website

Accomplished AI/ML and MLOps Engineer with 3 years of experience designing, developing, and deploying robust machine learning solutions and streamlining the end-to-end Machine Learning (ML) lifecycle. Proven ability in integrating DevOps and DevSecOps principles to architect and implement secure, scalable, and efficient Continuous Integration/Continuous Delivery (CI/CD) pipelines. Proficient in Python, Amazon Web Services (AWS), containerization technologies (Docker, Kubernetes), and automation tools (e.g., Terraform, Ansible). Seeking to leverage expertise in a forward-thinking organization focused on impactful AI-driven solutions.

SKILLS & CERTIFICATION:

- **Programming & Scripting:** Python (Proficient: Scikit-learn, Pandas, NumPy, TensorFlow, PyTorch), Bash, SQL
- **Models & Algorithms:** Classification (Logistic Regression, Random Forest, SVM, XGBoost, Naive Bayes), Anomaly Detection, Deep Learning (Basics)
- **Techniques:** Feature Engineering, Model Evaluation, Imbalanced Data Handling (SMOTE), NLP (TF-IDF, Lexical Analysis)
- **MLOps:** Model Deployment, CI/CD for ML, Model Monitoring & Versioning
- **Cloud Platforms:** AWS (EC2, S3, RDS, VPC, IAM, EKS, ECS, SageMaker, CloudWatch, CloudFormation)
- **CI/CD:** Jenkins, GitLab CI, GitHub Actions
- **Containerization & Orchestration:** Docker, Kubernetes
- **Infrastructure as Code (IaC):** Terraform, Ansible
- **Monitoring & Logging:** Prometheus, Grafana, ELK Stack, AWS CloudWatch

- **Security Tools:** SAST (SonarQube), DAST (OWASP ZAP), SCA (Snyk)
- **Cloud Security (AWS):** IAM Best Practices, Security Groups, NACLs, WAF, Secrets Manager
- **Container Security:** Docker Image Scanning, Kubernetes Security Policies
- Concepts: Threat Modeling, Vulnerability Management, OWASP Top 10
- **Compliance (Familiarity):** SOC2, PCI-DSS
- **Databases:** PostgreSQL, MySQL, NoSQL (Basics)
- **Operating Systems:** Linux (Ubuntu, CentOS, Amazon Linux)
- **Version Control:** Git, GitHub, GitLab
- **Methodologies:** Agile, Scrum, DevOps Principles
- **CERTIFICATION: AWS ASSOCIATE SOLUTION ARCHITECT, AWS PROFESSIONAL DEVOPS ENGINEER**

EXPERIENCE

SOFTWARE ENGINEER – ML/AI   @ESNEXUS   **MCLEAN**, VA | *Jan 2023 - May 2024*

- Developed and deployed machine learning models (gradient boosting, neural networks) for real-time fraud detection, reducing fraudulent activity by 18% and decreasing false positives by 22%.
- Engineered robust data pipelines using Python (Pandas, NumPy, Scikit-learn) and Apache Spark for ingesting, preprocessing, and feature engineering terabytes of transactional and behavioral data.
- Implemented MLOps (CI/CD) for fraud models on AWS SageMaker, automating retraining, versioning, and A/B testing, ensuring sustained model accuracy.
- Researched and prototyped deep learning architectures (LSTMs, GNNs) with TensorFlow/PyTorch to detect complex fraud patterns, enhancing existing detection capabilities.
- Collaborated with data scientists, fraud analysts, and engineers to define requirements, validate models, and integrate AI fraud prevention into production systems.

DEVOPS ENGINEER   @VERIZON   **REMOTE | June 2024 - August 2024**

- Fostered a collaborative environment by encouraging open communication and teamwork among students, mirroring effective team dynamics in technical environments.
- Adapted teaching methods to accommodate diverse learning styles, demonstrating flexibility and cooperation—key traits in cross-functional tech teams.
- Regularly collaborated with staff and administrators to align lesson plans and goals, showcasing an ability to work effectively within structured team settings.

- Acted as tech liaison for staff, helping troubleshoot application logins, software errors, and device issues.
- Reinforced strong communication and user-centric support skills in a fast-paced, multi-user environment.

DEVSECOPS ENGINEER   **@TECH TALENT**   **Ellicot City | Sep 2024 - April 2025**

- Integrated automated security testing (SAST, DAST, SCA) with tools like SonarQube, OWASP ZAP, and Snyk into CI/CD pipelines, enabling early vulnerability detection.
- Developed security automation and policies for AWS, hardening IAM, network security (Security Groups, WAF), and data encryption protocols.
- Secured containerized environments using Docker best practices and Kubernetes security policies (Pod Security Policies, Network Policies), managing secrets with HashiCorp Vault.
- Conducted vulnerability assessments, coordinated penetration tests, and performed threat modeling, providing actionable remediation plans to engineering teams.
- Ensured adherence to SOC2 and PCI-DSS compliance by automating security controls, evidence collection, and monitoring with tools like AWS Security Hub.

EDUCATION

- **George Mason University** | Fairfax, *May2024* • **Bachelors Science Information technology,** *Concentration: Web & App Development and Cloud Computing.*
- **Northern Virginia Community College (NOVA)** | Annandale, VA | DEC 2020 • **Associate of Science,** *Concentration:Computer Science.*

Projects: (Github)
- **Credit Card Fraud Detection (ML)**
- **Network Intrusion Detection (ML)**
- **Phishing Website Detection (ML)**
- **PortScanner**
- **E-commerce Analysis**
- **Telecom Churn Prediction**
- **Coffee Shop Analysis**
- **Mason Lost & Found**
- **99 House Wash**