# SAAD NADEEM

Aspiring Full-Stack Developer with Experience in DevOps and Cloud Technologies.

#### **SUMMARY**

Computer Science graduate with strong foundations in OOP and DSA, experienced in building full-stack web applications using the MERN stack. Led the development of *NeuroAssess*, an AI-driven platform using NLP to support neurodivergent students. Proficient in taking applications from code to cloud using DevOps workflows and scalable AWS infrastructure. Familiar with AI-assisted development and automation using tools like Cursor AI, n8n, and GenAI.

#### **EDUCATION**

#### **FAST National University of Computer and Emerging Sciences**

Sep 2021 - Jun 2025

Bachelor of Science in Computer Science

#### **TECHNICAL SKILLS**

**Languages**: JavaScript, Python, C++, SQL, HTML, CSS **Databases**: MongoDB (NoSQL), Oracle SQL (Relational)

Developer Tools: Git, GitHub, Docker, GitHub Actions, VS Code, Eclipse, Postman, Google Colab, Cursor AI

Frameworks & Libraries: MERN Stack (MongoDB, Express.js, React.js, Node.js), FastAPI, Tailwind CSS, Material UI, Pandas Cloud & DevOps: AWS (EC2), Terraform (IaC), Kubernetes, Argo CD, Helm, Jenkins, CI/CD Pipelines, Docker-based Deployments

AI Tools & Integrations: n8n, Cursor AI, Custom Vision (Hugging Face), RAG, OpenAI Whisper, RESTful APIs

## **PROJECTS**

# NeuroAssess - AI-Assisted Support for Neurodivergent Students (FYP)| MERN, Github, DevOps, AWS

- Co-developed and deployed an AI-powered MERN stack platform to support neurodivergent students, featuring an interactive React.js frontend and a scalable Node.js backend with MongoDB, ensuring efficient data flow.
- Integrated custom-trained AI handwriting recognition model (deployed via Hugging Face) to detect *dyslexia* and *dysgraphia*, automating detailed reports for users and psychiatrists to support personalized learning.
- Containerized the app with Docker and automated *AWS EC2* deployments using GitHub Actions CI/CD pipelines.

# **Containerized Web Application with CI/CD Automation** | *Docker, GitHub Actions, Bash*

- Designed and containerized a web application (Frontend, Backend, Database) using *Docker Compose* with hot reloading and optimized multi-stage builds for security and performance.
- Automated server monitoring and recovery using Bash scripts and systemd service configuration.
- Built a CI/CD pipeline with GitHub Actions for automated testing, security checks, and DockerHub deployment.

## Advanced Kubernetes Deployment with GitOps, Helm & Service Mesh| Kubernetes, Helm, GitOps

- Designed and deployed a multi-service containerized web application on *Kubernetes* with environment-specific ConfigMaps, Secrets, health probes, and resource limits across dev and prod clusters.
- Packaged and templatized Kubernetes manifests using Helm for scalable, environment-specific deployments.
- Implemented *GitOps* with *Argo CD* to automate continuous delivery with real-time Git sync and rollback support.

# Automating Web Project Deployments with Terraform (IaC) and GitOps Practices (Ongoing Project)

- Provisioning reusable AWS infrastructure (EKS, VPCs, ALB) via Terraform for consistent, one-command deployments.
- Integrating Grafana with Prometheus for real-time monitoring of latency, error rates, and request throughput.
- Reducing manual setup time and enhancing deployment reliability and visibility through GitOps-driven automation.

## **Phishing Email Detection System** | *Machine Learning, Python, Scikit-learn*

• Developed an ML-based email classification system using Python, FastAPI, and Scikit-learn, leveraging TF-IDF to detect phishing emails with enhanced accuracy and security.

## **Social Media Sentiment Analysis** | *Python, Transformers, Apify, Seaborn*

• Analyzed Facebook and Instagram comments on a fashion product using cardiffnlp/twitter-roberta-base-sentiment, identifying key sentiment drivers and visualizing trends to extract actionable customer insights..

#### **CERTIFICATIONS**

- Introductions to DevOps | IBM (Coursera)
- Git: Become an Expert in Git & GitHub | *Udemy*
- Google Prompting Essentials Specialization | Coursera
- Google AI Essentials Specialization | Coursera