

Nouman Zahid

+92-345-3391928 | noumanzahid.pro@gmail.com | Islamabad, Pakistan
[linkedin.com/in/nouman-zahid](https://www.linkedin.com/in/nouman-zahid) | github.com/NoumanZahid-85 | leetcode.com/u/NoumanZahid-85

PROFESSIONAL SUMMARY

AI/ML Engineer with hands-on experience building production-grade computer vision systems, end-to-end MLOps pipelines, and cloud-native ML deployments on AWS SageMaker. Proficient in Python, TensorFlow, YOLOv8, XGBoost, LangChain, and RAG architectures. Delivered live-deployed ML applications achieving 72.4% mAP50 in low-light object detection and R^2 of 0.97 in cloud-based price prediction. Certified in AWS Cloud Engineering and DevOps; currently pursuing BSCS at COMSATS University Islamabad.

EDUCATION

COMSATS University Islamabad
Bachelor of Science in Computer Science

Islamabad, Pakistan
2023 – 2027 (6th Semester)

PROFESSIONAL EXPERIENCE

Internship Trainee – AWS Cloud Bootcamp
CloudSec Network (CSN)

Canada (Remote)
Jun 2025 – Aug 2025

- Completed a 3-month intensive AWS Cloud Engineering and Security bootcamp with hands-on labs covering EC2, S3, IAM, Lambda, VPCs, CloudWatch, and security best practices under industry expert mentorship
- Designed and secured cloud-native architectures, configured IAM roles and policies, and built end-to-end monitoring and alerting pipelines on AWS applying the Well-Architected Framework

PROJECTS

DarkDetect – Low-Light AI Surveillance System | *YOLOv8, TensorFlow, OpenCV, Python, Streamlit*

- Fine-tuned YOLOv8n via Transfer Learning on the ExDark dataset (12 dark-environment object classes) achieving **72.4% mAP50** – a +146,288% improvement over the baseline – with real-time inference at 12.1 FPS on CPU
- Engineered a dynamic OpenCV preprocessing pipeline combining CLAHE (Contrast Limited Adaptive Histogram Equalization) and Gamma Correction in LAB color space to boost detection confidence in extreme low-light conditions
- Built an Albumentations-based adversarial validation suite (RandomGamma + GaussNoise) to stress-test model robustness; deployed a live Streamlit surveillance dashboard with real-time FPS telemetry, confidence analytics, and class distribution charts

Flight Price Prediction – End-to-End MLOps on AWS SageMaker | *XGBoost, SageMaker, S3, Streamlit*

- Designed a full MLOps pipeline from EDA and feature engineering (9 engineered features, label encoding, StandardScaler) to XGBoost training on AWS SageMaker with Bayesian hyperparameter tuning on ml.m4.xlarge instances, achieving $R^2 = 0.97$ and RMSE ≈ 768 INR
- Managed complete cloud workflow: S3 data ingestion, SageMaker estimator configuration, model artifact download, and Streamlit deployment with sub-second inference and live price category insights (Budget / Standard / Premium)

Breast Cancer Prediction Web App | *Python, Scikit-learn, Logistic Regression, Streamlit, Plotly*

- Built a clinical decision-support application using Logistic Regression on the Wisconsin Breast Cancer dataset to classify tumors (Benign / Malignant) across 30 cell nuclei measurements with a serialized StandardScaler preprocessing pipeline
- Developed interactive Plotly radar chart visualizations for real-time feature profile feedback; deployed live on Streamlit Cloud with sub-second response, sidebar-driven UI, and cached model inference

TECHNICAL SKILLS

Languages: Python (Advanced), JavaScript, Java, OOP, Data Structures & Algorithms

AI & ML: Machine Learning, Deep Learning, Computer Vision (YOLOv8, ResNet), NLP, LLMs, Prompt Engineering, RAG, AI Agents, TensorFlow, Keras, Scikit-learn, XGBoost, LangChain, Hugging Face, FAISS, Pinecone

Cloud – AWS: SageMaker, S3, EC2, Lambda, IAM, VPC, CloudWatch, Boto3

Web Development: React.js, FastAPI, Flask, HTML5, CSS3, Streamlit

DevOps: Docker, Kubernetes, CI/CD (GitHub Actions), Git, Linux

Mobile & Deployments: Flutter, Dart, Firebase | Vercel, Railway, Render, AWS EC2

CERTIFICATIONS

DevOps Mastery

Docker, Kubernetes, CI/CD Pipelines, Linux, Infrastructure Automation

KodeKloud

Issued Dec 2025

AWS Cloud Bootcamp 2025

AWS Cloud Engineering and Cloud Security – 3-month intensive hands-on program

CloudSec Network (CSN)

Issued Sep 2025

Programming for Everybody – Python

Foundational Python programming and computational thinking

University of Michigan (Coursera)

Issued Mar 2023