

# Azeem Aslam

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[Portfolio](#) | [Linkedin](#) | [Github](#)

## ABOUT ME

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Senior Computer Vision Engineer with proven experience delivering **production-scale vision systems** used in real-world environments. Deep expertise in **YOLO-based detection and segmentation**, dataset strategy, model evaluation, and deployment using **Python, PyTorch, TensorFlow, Docker, FastAPI, and AWS**. Trusted to **own end-to-end CV pipelines**, lead **data annotation and quality workflows**, and collaborate with distributed teams to ship reliable models across **automotive, healthcare, manufacturing, and public-sector** use cases.

## DIGITAL SKILLS

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**Core Competencies:** Analytical Skills, Mathematical Skills

**Computer Vision:** Computer Vision Systems, Object Detection, Image Segmentation, YOLOv8, YOLOv9

**Machine Learning Frameworks:** PyTorch, TensorFlow, Scikit-learn

**Computer Vision Libraries:** OpenCV, MediaPipe

**Data & Dataset Management:** Dataset Strategy, Data Annotation, Annotation Quality Control, Dataset Validation

**Model Evaluation Metrics:** Mean Average Precision (mAP), Precision, Recall, F1 Score

**Deployment & Engineering:** FastAPI, Docker, Amazon Web Services (AWS), SQL, Pandas

## WORK EXPERIENCE

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### OdyxAI (USA – Remote)

**Senior Computer Vision Engineer | 2025 – Present**

- Owning development of **car damage detection and segmentation pipelines** using YOLOv8 for production automotive systems.
- Leading the **data annotation and computer vision workflow**, including annotation guidelines, review cycles, and quality assurance.
- Coordinating distributed annotation teams to maintain **label accuracy, class balance, and dataset version control**.
- Driving model improvements through **dataset refinement, augmentation strategy, and error analysis**.
- Training and evaluating models in PyTorch, consistently improving **mAP and real-world robustness**.
- Delivering models ready for **production integration**, working closely with engineering and product teams.

### Crime Surveillance Unit (CSU, CM House), Government of Punjab

**AI / Data Scientist | 2025 – Present**

- Designing analytics pipelines for **large-scale complaint, FIR, and performance datasets** across districts and police stations.
- Automating data cleaning, transformation, and KPI computation using Python and SQL.
- Producing operational insights related to **response times, resolution rates, and workload distribution** for leadership decision-making.

## **OmniDent.ai (USA – Remote)**

**Computer Vision Engineer | 2024 – Present**

- Built **pose and gait estimation models** using PyTorch and TensorFlow for healthcare monitoring applications.
- Designed augmentation pipelines to improve model stability under **noise, occlusion, and motion variation**.
- Validated real-time pose tracking using **MediaPipe and OpenPose**.

## **UVAS & NAVTTC (Pakistan)**

**Lecturer & AI Trainer | Sep 2025 – Present**

- Taught AI, Data Structures, and Robotics to 200+ students & trainees.
- Supervised AI projects (YOLO detection, Streamlit/Flask apps).

## **Punjab Safe Cities Authority (Pakistan)**

**Communication Officer | Jul 2017 – Aug 2023**

- Contributed to AI-driven video analytics (object detection, anomaly detection).
- Supported IoT-based urban safety & surveillance initiatives.

## **EDUCATION AND TRAINING**

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**University of Salford Sep 2023 – Nov 2024**

*MSc, Internet of Things with Data Science*

**GPA:** Distinction

**Achievements:** Thesis: A deep learning framework for advanced vehicle/image classification and recognition

**Coursework:** Big data tools and techniques, Privacy in IoT devices, Machine learning and data mining

**University of Sargodha Sep 2012 – June 2016**

*Bachelor of Science, Information Technology*

**GPA:** A

**Achievements:** Thesis: JobFlow: Optimizing Recruitment with an ATS Solution

**Coursework:** Calculus and analytic geometry, Object-oriented programming, Database management system, Web systems and technologies, Information retrieval

## **PROJECTS**

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### **Industrial Object Detection**

Advanced object detection system for industrial applications.

### **Diabetes EDA and Modelling**

EDA and predictive modelling for diabetes dataset.

### **Credit Card Financial Dashboard**

Interactive financial dashboard for credit card data analysis.

### **Pakistan Crime Analysis**

Crime data analysis and visualization for Pakistan's crime trends.

### **Clinical Trial Insights**

Data analysis and visualization of clinical trial data using RDD, DataFrames, ML, and SQL.

### **Traffic Accident Analysis**

Analysis and visualization of traffic accident data to uncover patterns and trends.

## **HONOURS AND AWARDS**

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**Thinking Like an Analyst:** Maven Analytics [Maven Analytics](#)

**Professional Certificate: Product Management and Development** [Udemy](#)

**Project Management Skills for Leaders** [Linkedin](#)

**GDPR Compliance: Essential Training** [Linkedin](#)

**Google Analytics** [Great Learning](#)

**Securing the IoT: Security Risks** [Linkedin](#)

**HIPAA Privacy & Security Training (with Breach Notification)** [HIPAA Training us](#)

**Machine Learning with Python: Foundations** [Linkedin](#)

**Machine Learning with Python: k-Means Clustering** [Linkedin](#)

**GitHub for Data Scientists** [Linkedin](#)

**Learning Power BI Desktop** [Linkedin](#)

## **LANGUAGE SKILLS**

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Urdu (Mother tongue)

English (LISTENING C2 READING C2 WRITING C2 SPOKEN PRODUCTION B2 SPOKEN INTERACTION C1)