

# Anas Jafri

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## SUMMARY

Experienced **Data Scientist** skilled in **AI, Machine Learning**, and analyzing large datasets to uncover actionable insights. Delivered results and enabled data-driven decision-making.

## EDUCATION

Bachelors of Computer Information Systems Engineering | NEDUET | Karachi-PAK | 2023 | GPA-3.1

## EXPERIENCE

### Associate Software Engineer | Kodexolabs | Karachi | October 2023 - Present

- Design a try-on application for outfits and hairstyles using **Stable Diffusion** inpainting, img2img generation, and ControlNet. **Fine-tune LoRA** models for specific styles for high accuracy.
- Applied advanced image preprocessing techniques for segmentation, face detection, hair masking, and orientation using **YOLOv8** and **K-means** for hair length detection; improved processing speed by 40%, enhancing overall system efficiency.
- Devised a **medical chatbot** for doctors and patients, achieving a 70%. Built by a team of five, increasing operational efficiency and boosting patient satisfaction by 20%.
- Implemented **llama-parse** for chunking, **Hugging Face** models for embeddings, **Chromadb** for vector storage, and **MongoDB** for conversation details, achieving a 40% increase in data processing efficiency. Use **Langchain** with **OpenAI LLM** and advanced **RAG** techniques, improving response accuracy by 25%. Developed by a team of four and deployed on AWS, reducing deployment time by 50%.

### Machine Learning Engineer | Softech Worldwide | Karachi | December 2022 - February 2023

- Spearheaded a pivotal project, developing a redaction tool by collecting and annotating over 1,000 images using YOLOv8 for object detection. Pre-processed images and applied multiple image processing techniques, achieving a 40% improvement in redaction accuracy.
- Train a **computer vision** model on 5000+ collected and annotated images for a specific toddler class, reaching 92% in detecting objects and analyzing model performance.
- Collaborated seamlessly with cross-functional teams to achieve project milestones, demonstrating flexibility. Gained skills in **image segmentation**, convolutional neural networks (**CNN**), and recurrent neural networks (**RNN**).

### Data Analyst | Intend | London | April 2022 - August 2022

- Engineer advanced financial dashboards utilizing **PowerBI** and **Tableau**, accelerating decision-making by 30% and launching 3 new income strategies within 2 quarters.
- Collects, cleans, and analyzes financial data, improving actionable by 20% insights and contributing to enhanced decision-making processes.
- Master various **Python** libraries, including **Seaborn**, for comprehensive **data visualizations, interpretation, manipulation**, and report generation.

## PROJECTS

### Dynamic Chatbot | Final Year Project | August 2022 - August 2023

- Conceptualize a chatbot utilizing an ANN model, achieving an accuracy of 35%.
- Engineer **FastAPI** and web sockets for seamless front-end and back-end integration, showcasing **API** design skills.
- Create a custom bot without pre-trained **LLMs**. Employed standard **NLP** techniques: text-splitting, stemming, stop-word removal, and a bag of words for embeddings, processing over 10,000 queries with 90% accuracy.
- Establish continuous learning to adapt to real-time data refinements.

### Emotion Detection | Personal | January 2023 - February 2023

- Leveraged **sequential models** and image preprocessing techniques to detect emotions.
- Achieve an accuracy rate of 85% in emotion detection by training deep learning models on a diverse dataset of facial expressions, utilizing **TensorFlow** and Keras for model development and performance optimization.
- Designed a real-time emotion detection system using webcam feeds, enhancing user engagement by 10% and reducing latency to under 2 seconds.

### Color Detection Tool | Personal | June 2022 - July 2022

- Create an advanced **Machine Learning** algorithm to enhance color detection, achieving 95% detection success.
- Develop real-time color recognition, cutting processing time by 40%.
- Conduct extensive testing and validation to ensure robustness across various conditions.

## CERTIFICATIONS

### Google Advanced Data Analytics | Google-Coursera | 2022

- Mastered data visualization and enhanced analytical abilities.

## SKILLS

Python, SQL, Machine Learning, Deep Learning, NLP, Computer Vision, LLM, RAG, Langchain, AI Agents, CNN, RNN, Image Classification, Image Segmentation, Image Masking, Generative AI (Stable Diffusion), AWS, Data Analysis, PowerBI, Tableau, Pandas, Seaborn, GitHub, FastAPI, Web Sockets