ANAS ZAFAR

Sr. AI Engineer
Monthly Pricing: $4000
Hourly Pricing: $35

Education

Bachelor of Science (Computer Science)

National University of Computer And Emerging Sciences (FAST NUCES)

- •Dean List, President at The Literary Club (TLC), Director of Public Speaking Club
- •Artificial Intelligence, Information Retrieval, Data Science, Deep Learning, Research Methods

Work Experience

Senior Machine Learning Engineer (March2024 - Present)

SOC Solutions pvt ltd (Client Side Allocated). Karachi, Pakistan

- • Developed state-of-the-art RAG-based chatbots for legal and real estate industries, integrating multi-modal LLMs with retrieval systems, ensuring optimal model accuracy and runtime performance.
- • Utilized model compression techniques such as pruning and quantization to deploy lightweight models in production environments.

Research Engineer(Generative AI and Computer Vision) (February 2022 - February 2024)

Retrocausal
Advisors: Dr. Zeeshan Zia (Ex-ETH and Ex-MSR) and Dr. Quoc-Huy Tran (Ex NEC-Labs)
Ergonomic Risk Assessment Simulator

- • Developed a 3D human/hand pose estimation model for ergonomic risk assessment based on epipolar transformers and learnable triangulations to tackle heavy occlusions and environmental constraints
- • Incorporated knowledge distillation techniques to improve the performance and efficiency of deep learning models, enabling the deployment of smaller, faster, and more accurate models

LeadMachineLearningEngineer(Apprenticeship) (July2022-October2022)

HansonRoboticsLimited

- • Developed and implemented a Multi-Agent Generative Adversarial Imitation Learning (MGAIL) framework, utilizing Inverse Reinforcement Learning (IRL) techniques to train Sophia, the humanoid robot, resulting in a 10% improvement in her ability to accurately imitate human behavior
- • Incorporated Silicon Coppellia to ensure responsible and ethical AI behavior during human-robot interactions enhancing Sophia's capabilities in adapting to diverse human interaction

Machine Learning Engineer (December2108 - October2021)

SoftechWorldWideLLC Karachi,Pakistan

- • Designed a license plate detection and recognition system using YOLO for accurate plate localization and OCR with Tesseract for character recognition. The system was optimized for real-time performance, enhancing traffic monitoring and parking management applications

Machine Learning Intern (August2018 - October2018)

EngroCorporation Karachi,Pakistan

- • Developed an OCR and NLP-based application to extract information from diverse industry documents and construct a knowledge graph for data-driven insights. Utilized Tesseract for OCR, and SpaCy and Hugging Face Transformers for entity recognition and relationship extraction

Skills

Programming Languages:Proficient in:Python, Java, C/C++

Libraries and Frameworks:

Proficient in: PyTorch, NumPy, Hugging Face, Tensorflow, JAX Experience with: Flax, Equinox, Gradio, TensorFlow, Matplotlib, Scikit-learn, Pandas, W&B, Docker, Kubernetes, Pinecode, VectorDB, Atlas Search

Machine Learning/Deep Learning:

DistributedTraining&Inference,GenerativeModeling,NaturalLanguageProcessing,ComputerVision, Unsupervised Representation Learning, Audio Processing, Diffusion Models, Multimodal Models, Video Understanding Models, Large Language Models, Parameter Efficient Fine-Tuning