# **Qaiser Abbas**

ML Engineer / Data Scientist

Experienced Machine Learning Engineer with 3+ years of industrial experience. Skilled in Deep Learning, Computer Vision, NLP, and Data Science. Strong R&D professional currently working as a Sr. Machine Learning Engineer at SDSol Technologies.

#### Skills

Python, C, C++, MATLAB, JS, SQL
Keras, TensorFlow, OpenCV, FastAI, PyTorch, Transformers, SpaCy, NLTK
Numpy, Pandas, sci-kit learn, Matplotlib
VS Code, Sublime, PyCharm, Jupyter-Notebook, Google Colab, Postman, Streamlit
Git, FastAPI, HTML, CSS, Flask, Django, Docker, Azure, AWS

### **TECHNICAL EXPERIENCE**

#### Sr. ML Engineer

SDSol Technologies

- Developed a custom food recommendation system using unsupervised association rule mining and deployed as a REST API.
- Developed a video subtitle generation pipeline using OpenAI's Whisper.
- Developed an end-to-end query classification pipeline using NLP and Transformers.
- Developed an insect classification model and deployed on Azure using Azure Container Registry and Azure App service.
- Developed an API for sentence semantic similarity calculation using Sentence Transformers.
- Developing end to end machine learning projects for prediction, recommendation and computer vision problems.
- Helping stakeholders in data driven decision making by analyzing historical business data.

## Software Engineer (Deep Learning & Computer Vision)

Wortel AI

- Worked on weed detection algorithm using satellite images and Yolov5.
- Developed a medical speech recognition system by fine-tuning an Nvidia QuartNet model via NeMo library.
- Worked on AWS S3 and MLFlow plateform for deployment and maintenance of deep learning models.

#### **AI Instructor**

University of Engineering & Technology

- Taught undergraduate AI and ML courses (Theory+lab).
- Assisted the senior faculty in designing course contents for AI/ML and writing proposals for research grants.
- My research proposal entitled "Tea disease detection using Machine Learning and Remote Sensing" won a grant of PKR 3.5 Million from Higher Education Commission's National Research Program for Universities

### Freelance Deep Learning Engineer

UpWork & Freelancer.com

- Developed an image captioning algorithm for image retrieval using image's natural language description.
- Designed and developed a GAN model for Covid detection in CT Scans.
- Worked on various object detection projects using YOLO models.

### **Research Assistant (Deep Learning)**

Bioinformatics Research Lab, UET

- Worked with Prof. Dr. Muhammad Usman Ghani Khan on detection of rare and lethal Acral Lentiginous Melanoma.
- Developed a detection system for acral melanoma in dermoscopic images using proposed CNN architecture.
- Worked on Plant Disease Detection datasets and deployed classification models as REST APIs.

### **Computer Vision Engineer**

Wizdojo Technologies

- Developed a vehicle registration plate detection system using different deep learning algorithms.
- Collected and annotated data and trained a Mask RCNN model to detect and segment the vehicle registration plate.
- Designed a pipeline for extracting text from segmented licese plate using Tesseract OCR.

### EDUCATION

MS Computer Science, University of Engineering & Technology, Lahore | 3.78/4.00 CGPASep 2018 - Nov 2020Thesis: Detection and Prediction of Acral Lentiginous Melanoma in Dermoscopic Images using Deep LearningBS Information Technology, University of Sargodha | 3.63/4.00 CGPA | Gold MedalistOct 2014 - May 2018FYP: Energy Optimized Smart Surveillance System using Raspberry PiPiContextContext

### Certifications

Python 3 Programming Specialization by University of Michigan Deep Learning Specialization by deeplearning.ai Mathematics for Machine Learning by Imperial College London July 2020 April 2021 Sep 2020

Mar 2021 — Sep 2022 Lahore, Pakistan

Nov 2021 – Jan 2022

Lahore, Pakistan

Lahore, Pakistan

Nov 2022 — Present

Lahore, Pakistan

Nov 2020 — Mar 2022 Remote, Pakistan

Jan 2020 - Oct 2020

Aug 2019 - Dec 2019

Lahore. Pakistan

Lahore, Pakistan