

Muhammad Omer

CONTACT INFORMATION

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OVERVIEW

I am experienced in orchestrating end to end Data Science pipelines on multiple cloud platforms. Team work and Collaboration are my strongest suites. I have managed projects that span multiple departments. Over the years as a Data Scientist, I have been proposing solutions to unknown problems with top notch effectiveness. I love working on customer centric ideas that cater for customer sentiments.

WORKING EXPERIENCE

Techverx Jul 2021 – Present
Lead Data Scientist

- Analyse pre-existing models and algorithms; provide suggestions on how to improve the efficiency and effectiveness with changes that affect the bottom line of the organization.
- Lead teams to develop, adapt, combine, and choose data science methodology.
- Lead the prioritization of the Data Science team's workload.
- Engage with stakeholders to consult around analytical project requirements, discuss methodologies and negotiate deliverables.

xiQ Inc February 2021 – May 2021
Back End Developer

- Concocting Decision Support systems for Data Intensive applications..
- Developing and Deploying ETL pipelines for Business Intelligence solutions.
- Building custom visualization Dashboards.
- Working with the AI team to identify key data patterns using Tableau.

Programmers Force August 2019 – January 2021
Data Scientist

Face Liveness Detection:

- Exceeded benchmark results for face liveness detection for video sequences.
- Implemented state of the art object tracker and custom face detector.
- Trained tree based Zeroshot Convolutional Neural Networks (ZCNN) followed by a novel **LSTM** model on in-house curated datasets.
- Implemented a custom model by combining fishnet with DTN for better performance
- Identified multiple types of spoof attacks which included fake person videos, pictures etc

Face Similarity and Recognition:

- Identifying and tracking faces in low and high resolution videos.
- Finding similarity between low resolution images on papers and real person images.
- Achieved above 95% accuracy working with a noisy dataset.
- Tested and Implemented multiple methodologies for rotation of images achieving 98% accuracy.

Optical Character Recognition:

- Built custom OCR API that outperformed Google OCR both in accuracy and latency.
- Instituted Information Retrieval for extracting text information from customer provided

- verification documents.
- Perfected noise removal through empirical testing of various Computer Vision tools e.g. erosion & dilation filters.
- Implemented novel methodologies using Tesseract for text extraction.
- Slashed service cost by 25% and response time by 15%.

Generalized Address Extraction:

- Consolidated a state of the art Cross Model data pipeline, achieving address extraction from a plethora of document types.
- Implemented image segmentation models (**MRCNN**) for spatial information extraction followed by text based and heuristic models for address extraction.
- Generalised the models for any and all type of documents.

Customer Verification::

- Implemented object segmentation models to extract client specific information from personal verification documents.
- Tailored the segmentation models for more than 100 countries worldwide.

SKILLS

Programming Languages: Python, C++
Frameworks & Libraries: Statsmodels, Tensorflow, Keras, Scikit-Learn
Visualization: Matplotlib, Plotly, ggplot2, Dash, Tableau, Seaborn
Web scraping: Selenium, Scrapy, BeautifulSoup
Cloud Platforms: AWS, GCP
Operating Systems: macOS, Linux, Windows
Big Data: DataBricks,PySpark, Hive
Database: PostgreSQL, MySQL

EDUCATION

University of Management and Technology 2015 - 2019
 BS Software Engineering

CERTIFICATIONS

AWS Fundamentals: Going Cloud-Native
 Use of AWS for building servers and scaling them. Which instance to use for your servers lambda or EC2 Load balancing between multiple servers.

Deep Learning Specialization
 Mastered deep learning from its foundations to its industry applications (Computer Vision, Natural Language Processing, Speech Recognition etc). Developed practical understanding of Tensorflow and Keras