WaleedAhmad

Tel & Skype

+92 331 0333660
glwr666

Address

Permanent:
H#232, St#91
Sector E-11/2
Islamabad, Pakistan

Mail

Work:
waleedahmad@
addo.ai

Personal:
waleed.bin.zafar@
gmail.com

LinkedIn

www.linkedin.com
/in/waleedbinzafar

Education

2012 - 2016 **Bachelor's of Mechatronics Engineering** NUST, Pakistan
CGPA: 3.25/4.00
Thesis Title: "Design and Fabrication of a Brain Controlled Anthropomorphic Prosthetic Hand"
Supervisors: Asst. Prof. Dr. Mohsin Islam Tiwana, Asst. Prof. Nida Aziz
Implemented a fully operational realtime brain-computer-interface (BCI) control for a prosthetic hand. Also designed and fabricated an anthropomorphic prosthetic hand with 6 D.O.F.

Skills

- **Machine Learning** *Numpy, Pandas, Scikit-learn, Tensorflow, Keras*
- **Distributed Document Store/Search Tool** *Elasticsearch*
- **Log Ingestion Tools** *Kinesis Agent, Fluentd, Logstash, Filebeat*
- **Visualization** *Matplotlib, Seaborn, Tableau, Power BI*
- **Big Data Analytics** *Apache Spark, Apache Hive*
- **Cloud Platforms** *AWS, Azure, GCP*

Experience

02/19 - Now **Data Scientist - Lead Machine Learning Engineer** ADDO AI, Lahore | Islamabad | Singapore
Responsibilities:
- Tech Lead for numerous projects with various multinational organizations
- Responsible for upskilling employees in Machine Learning and Big Data domains within the AWS ecosystem
- Developing POCs for various AI & ML use-cases
- Conducting hiring interviews on behalf of reputed clients for ML positions
- Generating use-cases and Machine Learning applications in diverse business domains

Project Themes (see detailed list in projects section):
- Enterprise Data Strategy: Analysis, Solutioning, Roadmapping
- Machine Learning assisted CRM
- Fraud Detection in banking
- Targeted Marketing in retail
- Predictive Sales Analytics
- Anomaly Detection in retail
- AI based remote exam proctoring
- OCR applications in automation

08/20 - Now **Cloud & Data Science Instructor** Dice Analytics, Islamabad

Responsibilities:

- Designing and delivering course content
- Creating lab exercises for hand-on practice of areas covered

Courses taught:

Azure DP-100: Designing and Implementing a Data Science Solution on Azure

01/20 - Now **Customer Engineer** ADDO AI, Lahore | Islamabad | Singapore

Responsibilities:

- Liaising with stakeholders for determining business pain points
- Helping clients reach the best technical solution for their Data and AI needs
- Performing feasibility analyses for Machine Learning and Big Data use-cases
- Architecting cloud based Machine Learning solutions, Data Lakes, Data Warehousing solutions
- Working closely with sales and business units to create proposals for projects

01/19 - 09/19 **Data Science Lead** Numen Inc., Palo Alto, California

Responsibilities:

- Advising with Machine Learning strategy for a security product
- Devising real-time anomaly detection with collected logs for catching potentially malicious processes
- Creating Data Pipelines for the Machine Learning application

Project Theme:

Anomaly Detection in cyber-security applications

KPIs:

- Successful detection of numerous Malware, Trojans, and Exploits via anomaly detection module
- Declared partners by Xilinx
- Favorable reception of concept at Defcon Conference 2019

06/17 - 02/19 **Data Engineer** Ebryx Pvt. Ltd., Lahore, Pakistan

Responsibilities:

- Creating Data Pipelines for Machine Learning applications
- Performing ETL tasks in Local and Cloud settings
- Creating Machine Learning models and servings
- Conducting hiring interviews for Data Science team

Project Themes:

- Centralized log collection and analysis systems
- AI based Video Surveillance Systems
- Road Safety applications using Computer Vision
- Continuous authentication using User Behavior Analysis
- Anomaly Detection in cyber-security applications

07/14 - 12/14 **Data Science Intern** Ebryx Pvt. Ltd., Islamabad, Pakistan

Certifications

- **Amazon Web Services Certified Big Data - Specialty**
  (expires - 17 October 2022)
- **Amazon Web Services Certified Machine Learning - Specialty**
  (expires - 3 December 2022)

Projects

Data and Digital Transformation Strategy for a Hospital Chain
Conception of a data strategy For a US based hospital chain operating in 3 states. Included analysis of current state, identification of issues and goals, proposing a future state, and drawing a transformation road-map, staying mindful of security, governance, data management, analytics and reporting requirements, as well as other organizational needs
Technology stack involved overall was Azure Cloud Ecosystem, Epic Health Management System, SAP HANA, Hadoop, Oracle, Informatica as well as Denodo

AI based automation of billing for a power sector client
Using images of power meters uploaded by meter-readers across a metropolitan city, a cloud based solution was developed to extract the billing information from the picture and a batch service was deployed to the cloud.
AWS, Amazon Rekognition, Amazon Textract, Amazon Sagemaker, Tensorflow

AI assisted remote exam proctoring
Based on the video and audio stream being captured from candidates taking exams remotely on their laptops, video and audio based anomaly detection solutions were created to help the proctor spot suspicious (possibly unethical) behaviour.
AWS, OpenCV, Tensorflow.JS, Scikit-learn

First-touch customer lifetime value prediction
On the first transaction, predict the lifetime value of the customer, so that the business can identify and invest in potentially valuable customers early on
AWS, Sagemaker, Alteryx, EMR, Spark, Hive, Tensorflow, Keras

Anomaly Detection in retail
Identify professional (surrogate) shoppers who take benefit from subsidised prices and shop in bulk to further sell at premium rates, hurting the company's business
AWS, Sagemaker, EMR, Spark, Tensorflow, Keras, Identification of surrogate shoppers

Predictive Sales Analytics
Predict the demand of certain SKUs at regional stores, to aid in logistics decision making as well as in dynamically pricing the SKUs
AWS, Sagemaker, EMR, Spark, Tensorflow, Keras, Sales Predictions at user granularity

Targeted Marketing in Retail
Raised the response for email campaigns by 40% for one of the world's biggest international retail stores
AWS, Sagemaker, EMR, Spark, Tensorflow, Keras, Market Segmentation, Influence Modeling, Propensity Modeling

Fraud Detection in Banking Transactions
POC for one of Singapore's biggest banks
Azure, Tensorflow, Keras, Anomaly Detection in Transactional Data

Churn prediction in retail
Predict likelihood of churn in customers
AWS, Sagemaker, EMR, Spark, Customer Segmentation

AWS based Log-Pipeline and Anomaly Detection
Stream log files in a number of systems to a central data repository, and detect anomalies to highlight potential security risks
AWS, Kinesis, Data Stream, Lambda, Elasticsearch, Spark, Flask, ML assisted Cybersecurity

Athlete tracking for application in Sports
Deep learning, Tracking, Python

Order information retrieval from restaurant receipts
OCR, Tesseract, Python

Deduplication of Address Records for hyper-local applications
Python, NLP, Deduplication

Highway Cam visibility Estimation
Computer Vision, Visibility, Machine Learning, OpenCV, Scikit Learn, Python

Object Detection and Tracking software (Vigilyx)
Deep learning, Tracking, Python, Design, Documentation, Biz-dev, ML based Video Surveillance

Centralized Log collection and Anomaly Detection
ELK Stack, Elasticsearch, Logstash, Filebeat, Spark, Anomaly Detection, Unsupervised

BCI controlled Prosthetic Hand
3D Design, Fabrication, Brain-Computer-Interface, Machine Learning, Embedded, Beaglebone, Multiclass Classification

Location-Aware News Tracker
Semi-supervised, NLP, Classification, Web-scraping, Python

Music Sheet Reader
Image processing, MATLAB

Gesture Driven Interactive Puzzle
Image Processing, OpenCV, C++

Courses (MOOCs)

- **Data Engineering, Big Data, and Machine Learning on Google Cloud Platform Specialization** *Google - Coursera*
  - End-to-End Machine Learning with Tensorflow on GCP
  - Production Machine Learning Systems
  - Image Understanding with Tensorflow on GCP
  - Sequence Models for Time Series and Natural Language Processing
  - Recommendation Systems with TensorFlow on GCP
- **Advanced Machine Learning with TensorFlow on Google Cloud Platform Specialization** *Google - Coursera*
  - Google Cloud Platform Big Data and Machine Learning Fundamentals
  - Leveraging Unstructured Data with Cloud Dataproc on Google Cloud Platform
  - Serverless Data Analysis with Google BigQuery and Cloud Dataflow
  - Serverless Machine Learning with Tensorflow on Google Cloud Platform
  - Building Resilient Streaming Systems on Google Cloud Platform
- **Deep Learning Specialization** *deeplearning.ai - Coursera*
  - Neural Networks and Deep Learning
  - Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
  - Structuring Machine Learning Projects
  - Convolutional Neural Networks
  - Sequence Models
- **Machine Learning Specialization** *University of Washington - Coursera*
  - Machine Learning Foundations: A Case Study Approach
  - Machine Learning: Regression

- Machine Learning: Classification
- Machine Learning: Clustering & Retrieval

- **Tensorflow in Practice Specialization** *deeplearning.ai - Coursera*
  - Introduction to TensorFlow for AI, ML, and Deep Learning
  - Convolutional Neural Networks in TensorFlow
  - Natural Language Processing in TensorFlow
  - Sequences, Time Series and Prediction
- **Big Data Essentials: HDFS, MapReduce and Spark RDD** *Yandex - Coursera*
- **Data Science Specialization** *Johns Hopkins University - Coursera*
  - The Data Scientist's Toolbox
  - R Programming
  - Getting and Cleaning Data
- **Machine Learning** *Stanford University - Coursera*
- **Using Databases with Python** *University of Michigan - Coursera*
- **Algorithmic Toolbox** *University of California, San Diego - Coursera*