



# ABDULLAH ASHFAQ

## PERSONAL INFORMATION


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## EXPERIENCES AND PROJECTS

### Data Scientist - Production

July 2020 - Jan 2022

Afiniti  (Remote)

Tools : Stan, R, Python, MySQL

DS Applications : Customer Segmentation, Churn Prediction, LTV Prediction

- [Behavioural Pairing] : Created and productionized models that intelligently pair customers and agents in a call center environment
- [Metric/KPI Design] : Designed metric to be used in modelling and routing calls which when optimised, would maximize client's revenue
- [Statistical Testing] : Used statistical tests (A/B testing, power test, hypothesis testing) to quantify impact of changes and confidence intervals around them
- [Production Monitoring] : Automated monitoring of production environment and freed time of AI Production team by 20%
- [Data Visualization] : Designed dashboards and tools to aid in identification of common issues
- [Data Pipeline] : Ensured data integrity by designing automated alerts as well as visualizations
- [Reporting] : Reported results and conveyed complex concepts in simple terms to client-facing teams
- [Communication] : Collaborated with cross-functional teams to identify business issues and translated business problems and insights into data science problems
- [Ownership] : Reviewed and signed-off on the data pipeline and models on accounts before going live

### Technical Delivery Consultant/Data Scientist - Professional Services

Jan 2022 - Sept 2023


Totogi - Crossover for Work 

Tools : Python, Flask, GraphQL, AWS, Docker, Kubernetes

- [ETL] : Designed an ETL migration tool 30x faster than existing solutions and successfully migrated over 50 customer accounts using it
- [Software Development] : Deployed and integrated Facebook's Magma Core with Totogi OCS
- [MVP Implementation] : Designed and implemented tools and services using Python and AWS infrastructure for facilitating demos and internal teams
- [Legacy Software Upgrade] : Migrated legacy software (C/C++) from RHEL7 to RHEL8 saving the company USD 3 Million
- [API Testing] : Wrote custom tools in Python for automated monitoring and testing of company's open-source API

### Research Intern for Machine Learning and AI

June 2017 - June 2019

TUCL-NUST Research and Development Center 

Tools : Vivado HLS/C++, Python, Pytorch

- Developed open-source library to create custom hardware architecture
- Restructured algorithms to achieve Hardware-Software co-optimization
- Implemented the algorithm for binarization using integral image on FPGA

## SKILLS

**Certifications :** AWS Cloud Practitioner, AWS Solutions Architect

**Databases :** MySQL, Greenplum, Athena, GraphQL

**DL/ML Frameworks :** Pytorch, Tensorflow, Caffe, Keras, Scikit-Learn

**DevOps Tools :** Docker, Git, Kubernetes, Shell Scripting

**ML Algorithms Used :** Regression (Logistic, Polynomial, Ridge/Lasso),  
Classification (Logistic, XGBoost, Decision Tree, Random Forest, SVM), Clustering,  
Bagging, Boosting, Autoencoders, CNN, DNN, RNN, LSTM

**Worked on DS Problems :** Customer Segmentation, Churn Prediction, Incremental Effects

## LEADERSHIP EXPERIENCE AND AWARDS

### Afiniti

2021-2022

- Led teams on 2 clients simultaneously which delivered up to 4% revenue gain
- Created friendly and innovative environment in my team and personally coached struggling members

### Summer@EPFL Internship Program

June 2019 - Sept 2019

Value : 1,600 USD/month. Acceptance Rate  $\approx$  1%

### CERN Openlab Internship Program (2x)- PASSED

2019 and 2020

Value : 2,600 USD/month. Acceptance Rate  $\approx$  7.5%. (Cancelled in 2020 due to Coronavirus pandemic)

### US Dept. of State Global UGRAD Exchange Scholarship

2018

- Represented Pakistan in a program with 2% acceptance rate based on leadership skills

### Gold Medal in High School and Merit Scholarships in College

2015-2020

## EDUCATION

### Masters in Science-Data Science

2023 - 2025

Halicioglu Data Science Institute, UC San Diego

### Bachelor of Electrical Engineering

2015 - 2020

**Knowledge Area** - Computer Engineering

SEECS, National University of Sciences and Technology (NUST), Islamabad, Pakistan