

# WALEED AHMAD

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## EXPERIENCE

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### Consultant Machine Learning Engineer

March 2022 – December 2022

eBay

San Jose, California (remote)

- Worked in the Merchandize and Ads team focused on creation eBay recommendations with GCP tech
- Engineered and maintained data assets and pipelines across EDW, datalake and A/B testing solutions.
- Carried out POCs for moving the business' recommendations service to Google cloud.

#### Mentionworthy Projects

- Seedless Recommendations Model on GCP — Set up a seedless recommendations model for placement on the homepage using Google's Recommendations AI service, and benchmarked against existing models.
- AutoML based modeling — Created POCs using the Google Tabular AutoML service to train seeded and seedless recommendations models.

### Competency Head, Data Science & Machine Learning

September 2021 – May 2022

Addo AI

Lahore, Pakistan

- Managed the entire bench of Addo's Machine Learning and Data Science competency at a strength of 20+ engineers.
- Cross-sectionally oversaw the delivery cycle of all Machine Learning projects organization-wide with global clients
- Adopted resource monitoring via dashboards for capacity planning.
- Launched organization wide training pathways for upskilling of Machine Learning and Data resources, through certification streams and knowledge sharing sessions
- Streamlined hiring processes for the competency to improve quality in hiring while minimizing the process overheads

#### Mentionworthy Projects

- Hospital Operational KPIs: BI with forecasting — Built data models and dashboards for reporting and forecasting models of hospital operational KPIs for the leadership to steer staffing decision-making and workforce planning, leading to 3 hires in the first 2 months, improving nursing KPIs.
- Workplace Analytics using video — Led development of a video analytics platform for providing a number of KPIs regarding video feeds showing employee statistics.

### Lead Data Scientist

February 2019 – May 2022

Addo AI

Lahore, Pakistan

- Lead numerous Machine Learning projects in team sizes of 2-5 with various multinational enterprise clients
- Upskilled employees in Machine Learning and Big Data domains within the organization by means of training sessions and cloud certification programs
- Developed use-cases and helped clients find Machine Learning applications in diverse business domains
- Assisted in business development, pre-sales, and professional services, working closely with client business units to create technical proposals and POCs for data projects
- Managed Addo's Machine Learning and Data Science teams for various projects

#### Mentionworthy Projects

- Predictive risk of readmissions in heart failure patients — Led the implementation of a model deployed on Azure and integrated with on-premise EHR systems. Trial period ensured prevention of 7-13 cases per month.
- Data lake implementation — Worked in a team of data architects to design a 3 tiered data lake using Azure deltalake technology for a healthcare client. Data lake structure taxonomy allowed for quick implementation of reporting/dashboarding and ML usecases from curated data.
- MLOps platform — Led a team of ML and Cloud Engineers in the design and implementation of an enterprise scale MLOps architecture immediately used for several usecases.
- Data Strategy — Helped conceive a data strategy for a US based hospital chain suggesting major technology overhaul. The client moved to implement this within months with complete stakeholder buy-in across the org.
- Targeted Marketing Campaigns - Raised the response for email campaigns by 40% for one of the world's biggest international retail stores using Market Segmentation and Propensity Modeling.

- Tax-evasive Buyer Detection in Retail Transactions - Developed an anomaly detection model for a top global retail stores using deep neural networks, achieving manifold better performance than heuristic rules.

## Data Science Lead

January 2019 - September 2019

*Numen Inc.*

*Palo Alto, California (remote)*

- Developed a real-time anomaly detection system with collected logs for catching potentially malicious processes as part of a cybersecurity product
- Created Data Pipelines for the Machine Learning application within the solution
- Successfully detected several known numerous Malware, Trojans, and Exploits via anomaly detection module
- The product was well-received at Defcon Conference 2019 and Numen was declared Xilinx partner

## Cloud & Data Science Instructor

August 2020 - October 2020

*Dice Analytics*

*Islamabad*

- Designed and delivered course content for Azure DP-100: Designing and Implementing a Data Science Solution on Azure

## Data Engineer/Data Scientist

June 2017 - February 2019

*Ebryx Pvt. Ltd.*

*Lahore, Pakistan*

- Created Data Pipelines for Machine Learning applications, performed ETL tasks in Local and AWS environment and created Machine Learning models & servings for applications

### Mentionworthy Projects

- Real Time Log Analytics — Developed streaming pipeline for collecting system log data to cloud using Amazon Kinesis and detected anomalies to highlight potential security risks
- Pedestrian Detection and Tracking Product — Developed a pedestrian detection and tracking solution providing alerts for activity in restricted access areas.

## EDUCATION

### Georgia Institute of Technology (GATech)

Aug. 2021 – Present

*Master of Science in Analytics*

### National University of Science and Technology (NUST)

Sep. 2012 – Jun. 2016

*Bachelor of Engineering in Mechatronics Engineering*

*Focus: Robotics and Automation*

## TECHNICAL SKILLS

Machine Learning	<i>Spark MLlib, Horovod, Numpy, Pandas, Scikit-learn, Tensorflow, Keras</i>
MLOps Tools	<i>MLFlow, Azure ML Service, Amazon Sagemaker, Vertex AI, Docker, Databricks</i>
Data Engineering	<i>dbt, Snowflake, BigQuery, Elasticsearch</i>
Visualization	<i>Power BI, Plotly Dash, Matplotlib, Seaborn, Tableau, D3.js</i>
Big Data Analytics	<i>Databricks, Apache Spark, Apache Hive, AWS Lambda</i>
Streaming	<i>Amazon Kinesis Streams, Apache Kafka</i>

## COURSES / MOOCs (Selective)

- Machine Learning Engineering for Production (MLOps) Specialization *deeplearning.ai - Coursera*
- Data Engineering, Big Data, and Machine Learning on GCP Specialization *Google - Coursera*
- Advanced Machine Learning with TensorFlow on GCP Specialization *Google - Coursera*
- Deep Learning Specialization *deeplearning.ai - Coursera*

## CERTIFICATIONS

- Amazon Web Services Certified Big Data - Specialty
- Amazon Web Services Certified Machine Learning - Specialty
- Microsoft Certified: Azure Data Scientist Associate