

SYED MUHAMMAD MUSTAFA

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About

A Data transformation & Radio Access Network professional having a history of translating conventional decision-making systems into modern data driven analytical frameworks to achieve tangible benefits and organizational objectives. Exceptional track record in Data Science, Machine Learning, Deep Learning, Big Data Engineering, Algorithm Efficiency design, Analytics Framework Design, Real Time Analytics, Business Analysis, RAN & IT transformation coupled with 10+ years of practical experience in Performance Management, Customer Value Management, Radio Network Planning & Optimization, Digital, IT & Fin-tech industry with world-class telecommunication companies.

Professional Growth

Organization	Designation	Duration
TCIL (Saudi Arabia)	Engineer (Ericsson-Saudi Telecom Project)	Jun 2017 – Up to date
Meatech (Saudia Arabia)	Engineer (Huawei Tech Investment Project)	Nov 2016 - Mar 2017
Netkom (Pakistan)	Engineer (Huawei-Ufone NPM Project)	Dec 2015 - Oct 2016
LCC (Pakistan)	RF Engineer Level-I	Jan 2012 - Nov 2015
Leiamra Engineering & Solutions	Junior Engineer	Dec 2010 - Dec 2011

Specialties:

- * Reporting & Data Automation Using Python
- * Big Data Handling, MS Access, Hadoop, Spark & MYSQL Database
- * Power BI & Tableau Advance Level Reporting
- * Machine & Deep Learning Techniques
- * Descriptive Data Analysis & Analytics
- * Performance Management & Executive Reporting
- * Data Cleaning, Wrangling, Visualization & Quality
- * Data Modeling, Predicting & Storyteller
- * Radio Access Network Performance, Planning & Optimization
- * Experience in projects of implementation systems such as: AI/ML, Big Data, BI, ETL on USF, PTCL, Ufone, STC, CITC etc.
- * Oversight of Services' Systems Fixed & Wireless (RAN & IoT based) and ICT-infrastructure Projects
- * Leads many internal/external projects as instruct by government & proposed by Ufone, PTCL, Saudi Telecom/Vendors to other organizations, related with Systems Designing, Planning, Integration, Technology and Innovation
- * Experience in government-based projects. Like; USF Swap, HBA, Expansion, Roll Out Experience for 2G, 3G, LTE & 5G
- * 2G/3G/LTE/VOLTE Network Optimization, Planning, Cluster & Network Level Acceptances
- * Management/Monitoring of SLA, Contracts and RFP, RFQ, PRF, RFI on Quarterly basis
- * Radio Feature Trails, Implementation, Audits & Complain handling
- * Process Development and Management (SOPs & MOPs)
- * End to End Project Coordination, Control, and Lifecycle management
- * Team Counselling & participation in network optimization, researches, developments & design
- * Strategic Planning and Organizational Growth

Experience

TCIL (Saudi Arabia)

Engineer at Ericsson-Saudi Telecom Company Project [Jun-2017 up to date]

As part of Technology Performance Team. I am responsible for Data Analysis/Analytics, Automation, Customer Experience, Network Performance Monitoring, conceiving and developing statistical data-mining based models aligned with strategic and tactical priorities of the organization.

Work Responsibilities:

- Analytical Data-set Development/Automation
- Network performance analysis, analytics & management
- Dormancy/Churn Prediction modeling using Machine Learning Algo's
- Responsible for Riyadh Season STC network assurance & suggested network design using Data Analysis/ Predictive Modeling
- Pre post campaign analysis
- Response Modeling (Model iterations based on response)
- Data Aggregation and Feature Engineering for model enhancement
- Speed Data Analysis/Analytic for customer perception improvement
- Sourcing Structured and semi-structured data into Big Data Platform
- Monthly/Weekly meeting with customer to ensure the KPIs in thresholds & modeling for further improvement
- RAN parametric analysis & suggest for feature implementation for network improvement
- Analysis of CS/PS Traffic Forecast specially in major events on kingdom wide data using ML modeling

Major Analysis/Projects:

Automation Projects using Python:

- Automation of "KPIs/Analysis/Analytics Reports" receive by Email at specified time
- Automation of "CITC Report" as per customer's specified format
- Automation of "Event Data & Reporting" receive by Email at specified time
- Auto "KPIs Status/Values" receive on WhatsApp at specified time

Visualization Projects & Reporting using PowerBI:

- Customer Complain Analysis Dashboard
- All RAN Technologies Hourly Event Reporting Dashboard

Database Management using MYSQL & MS Access:

- Creating, Managing & extracting Network/City/Site/Cell/Event/Area level data
- Create & Manipulate Event Based Databases

Analysis/Analytics using Machine & Deep Learning Projects:

- Customer Experience Index (CEI) & Radio Access Network (RAN) KPIs Forecasting like; Traffic, Capacity, Coverage using ML Algo (Linear Regression & XGBoost Regressor)
- Market Share forecasting & Performance Comparison using ML Algo (Linear Regression)
- International Roaming Experience Use-case using ML Algo (Logistic Regression)
- Device Brand Loyalty prediction and experience ratings using ML Algo (XGBoost)
- Net-Promoter Score Correlation with Network Performance
- Customer Value Segmentation(VVIP, VIP etc.) using ML Algo (K-means clustering)
- Customer churn prevention/Analysis using ML Algo (XGBoost Classifier & Random Forest)
- Predict & Analyze Whole Journey of Customers
- Customer sentiment analysis about packages & services using ML Algo (Random Forest)
- Customer Migration Segmentation using ML Algo (K-means clustering)
- Price Optimization about Packages & Devices using (Linear Regression & XGBoost Regressor)
- Real-time SIMBOX Grey traffic Identification & Forecasting Module to predict grey MSISDN in Ericsson Network using ML Algo (Isolation Forest)
- Perform Real-time analytics during event & take action accordingly using ML Algo (Linear Regression & XGBoost Regressor)
- Detect Network/Regional Level Network Issues using ML Algo (Isolation Forest)
- Forecasting Customer Dormancy using Network Performance
- Customer Social Media Services Segmentation using ML Algo (K-means clustering)
- RAN Design proposed on Janadaryah & FI event using Machine Learning Modeling
- Proposal to change the network design on Royal Palaces on basis of last 5 years data analysis
- MIMO data analysis/audit to find out hardware issues for Throughput & Data Volume Improvement.
- Tuning of Inter-Frequency Load balancing after analysis to balance the traffic between layers as per STC strategy
- Activation of MCPC in Jeddah & Riyadh on basis of coverage prediction/analysis to improve mobility in low coverage areas

- Parametric database analysis review/setting of CS Fallback as per STC strategy

Meatech (Saudi Arabia)

Engineer at Huawei Technologies Investment Project [Nov 2016 - Mar 2017]

As a part of Huawei Project Team. I am responsible for Network Data Analysis, Automation, Optimization, Implementation of the project Work Responsibilities.

Work Responsibilities:

- Analytical Dataset Development/Automation
- RAN Data Analysis, Optimization & Feature implementations
- Analyze Customer Complaints & recommendation for resolution
- Bi-Weekly meeting with customer to ensure the Project KPIs in thresholds & recommendation for further improvement
- RAN parametric audits against new enhancement in network
- Predictive Modeling for gaining more project scope using Machine Learning Algorithms
- Feature/Project implementation for network improvement

Major Analysis/Projects:

- Dataset Development/Automation for 4G5 project
- U900 Reforming & 2G/3G Modernization project optimization/implementation
- 2G/3G/LTE USFScope10 Project design after geographical/population analysis
- Technology Rollout Plan, implementation & acceptance from customer
- Carrier Aggregation settings review after Data Analysis & find out 800+ cells in Riyadh where CA traffic was zero
- LTE L17Q4C3 software upgrade recommendation after Node Level Data Analysis

Netkom (Pakistan)

Engineer at Huawei-Ufone NPM Project [Dec-2015 to Oct-2016]

Worked as Data Analysis & Optimization Engineer. I am responsible for analyze & optimize the KPIs of Radio Access Network.

Work Responsibilities:

- Make predictions after RAW data shaping/analysis & suggestion for RF design/optimization related activities
- Radio Access Network (RAN) related recommendations for network improvement after analysis of different parameters.
- Responsible/monitor & optimize RAN KPIs to improve/ensure the services to the end users
- Network worst areas/cells identification/improvement & resolve through hard and soft optimization.
- Event Assurance & Expansion Working, WAP Generation/Implementation and Benchmark on Monthly Basis.
- Conduct Parametric Audit, License Audit & Neighbor Audit includes Report Generation, WAP Generation/Implementation & BM on Monthly Basis.
- Responsible for network 3G/2G Roll-out & Sector Addition design/recommendations/implementation after pre user services data analysis.
- New Sites CS/PS Traffic recommendations Prediction & KPI's monitoring on daily basis & performs Hard/Soft Optimization if required.
- Project activities planning/controlling & dashboard reporting to the directors.

Major Analysis/Projects:

- Demographic Prediction
- Customer Complaints analysis/resolution after launch 3G in Quetta City
- Multi Cities Prediction Model
- Contextual Servicing - NBS (Next best Service)
- End to end automation for RAN and operational tasks.
- Reduce Overshoots through Redesigns after analyzing DT & TP Stats
- SHO Improvement Project through Neighbor Deletion & Redesigns
- EcNo Improvement Project to Reduce Common Control Channel Power & Redesigns
- RNC Cutover Project includes Parametric Standardization, Neighbor Plan, Drive Testing & Benchmark

LCC (Pakistan)

RF Engineer Level-I [Jan-2012 till Nov-2015]

Worked as Data Analysis & Optimization Engineer. I am responsible for analyze & optimize the KPIs of RAN

Work Responsibilities:

- Daily monitoring/analyzing the major RAN (Radio Access Network) KPIs.
- Hardware issues escalation after deep analysis
- Major Quarterly CS & PS Projects/Trails after network bad coverage/quality analysis
- **Resolve Costumer Complains through Hard & Soft Optimization.**
- Daily Review & Identification of Worst Cells based on CS/PS Traffic, RRC/RAB Setup Success Rate, CS/PS Call Drop Rate, Soft/IRAT Handover Success Rate, R99/HSPA Throughput, GoS and its resolution through hard and soft optimization.
- Post Processing & Report making like Quarterly OMO, Monthly Strategic Route, Bad EcNo/Throughput Patches Report etc.
- Responsible for weekly report presentation which comprises of Network Health
- Generating/Discussion on SLA Conformance for all CS, PS, NSS & BSS with Costumer on Monthly/Quarterly Basis.

Major Analysis/Project:

- Tool for Auto detection of hardware issues
- Analyze field data to detect/improve network low coverage areas
- DHA QoS Crash Optimization Project through different optimization activities & feature implementations
- To Eliminate Pilot Pollution in Karachi City through Naster Anaysis
- Physical & Power changes on major cities to increase capacity & coverage
- To restrict coverage in high security alert areas as per government order using physical & parametric changes
- Throughput Improvement Project in Karachi & Islamabad City through Parametric settings to improve costumer experience
- Big data analysis & redesign Quetta City after IFOS lunch
- Predictions of all operators services specially quality

Leiamra Engineering & Solutions (Pakistan)

Junior Engineer [Dec-2010 till Dec-2011]

As a part of Technical Team, I am responsible for Designing, Testing, Commissioning & Integration of Electronics Fire, Security & Building Management Systems.

Work Responsibilities:

- Testing, Commissioning & Integration of Conventional & Addressable Fire Alarm, Fire Hydrant, Fire Suppression, Fire Sprinkler, CCTV, Public Address & Building Management System.
- Making Bill of Quantities, Quotations with Pricing Estimation
- Site Surveys & drawing using AutoCAD
- System Recommendation & Designing as per project requirements

Major Projects:

- End to end Designing, Testing, Commissioning, Programming & Integration of Addressable Fire Alarm System in Dolmen Mall Tariq Road.
- Designing, Integration & Testing of Fire Hydrant System in Abbot Laboratories.
- Conventional Fire Alarm & IP based CCTV System Designing, Software installing & Programming in Habib Bank Head Office Building
- Surveillance Monitoring CCTV System Consultancy & Designing for City District Government Karachi

Tools & Software's

Huawei	Ericsson	STC	Tools & Software's
Huawei LMT, CME, PRS & IMANAGER 2000	Business Object	Proptima	Python & its libraries
Huawei UNet 3.8	Web Intelligence	UPM	MYSQL & MS Access
Huawei RND 8.0	OSS Common Explorer	RTTS	Tableau & Power BI
UMTS FMA(3.8.2)	Win FOIL	CTTS	Hadoop & Spark
Huawei Genex	ESAT	TRMS	Machine & Deep Learning
Huawei Nastar	IPAS	NPTS	MS Office & AutoCAD
Geo-Location	TRMS		Mapinfo, TEMS, FDI, Actix
Huawei Smart Care	RAN Analytics		Nemo Analyzer
ISDP	ERA(Ericsson RAN Analyzer)		Mentum Planet, NEPA, ATOLL
	RRM (Radio Resource Management)		AFP (Automatic Freq Planning)
			FAS (Freq Allocation Support)
			NCS (Neighbor Cell Support)

Participation/Certifications/Trainings

- Outstanding Achievement & Performance Appreciation Certificate awarded in Hajj 2017 Event by Ericsson (Saudi Arabia) on Saudi Telecom Company Account. Issuer: Wissam Yamout(MS CTO COO) Ericsson on STC Account
- Best Emerging Radio Frequency Engineer Appreciation Certificate & Price awarded by Huawei (Pakistan) on Ufone Account Issuer: Zhangdongxu(D&S VP) Huawei on Ufone Account
- Python for Data Science and Machine Learning Bootcamp (Udemy Online Academy)
- Microsoft PowerBI & Tableau (Udemy Online Academy)
- Radio Access Network Certified by Ericsson, Saudi Arabia
- Automation Certified by Ericsson, Saudi Arabia
- Machine Learning Certified by Ericsson, Saudi Arabia
- Robotics Process Automation Ericsson, Saudi Arabia
- Automation Everywhere Ericsson, Saudi Arabia
- Operations Engine Essentials Ericsson, Saudi Arabia
- Artificial Intelligence Ericsson, Saudi Arabia
- Data Science Ericsson, Saudi Arabia
- Radio Analyzer Ericsson, Saudi Arabia
- LTE Features Ericsson, Saudi Arabia
- 5G Intermediate training by Ericsson, Saudi Arabia
- Matlab & labview Certification by Sir Syed University of Engineering & Technology
- Advance MS Office Certification by Farooq-e-azam institute
- Participate in online solving problems using Python on W3 Resource platform
- Participate on Kaggle Competitions & get score on more than 50% of participants

Education

- [2010] Bachelors in Electronic Engineering (Degree Registered in Pakistan & Saudi Engineering Council) Sir Syed University of Engineering & Technology, Karachi, Pakistan
- [2006] Board of Intermediate Education, Karachi, Pakistan
Ghazi Foundation Collage, Karachi, Pakistan
- [2004] Board of Secondary Education, Karachi, Pakistan
Progressive Children's Academy, Karachi, Pakistan

Personal Information

Date of Birth: 17-March,1988 Status: Married
 Nationality: Pakistani Residence: Saudi Arabia
 Language: Urdu, Arabic, English (Professional)

Interests: To study & research on new technologies/innovations & implement on real work environment, Reading motivational& adventurous stories, Traveling & adventure, Playing Football, Cricket & Mind challenging games.