

ASIF SHEIKH

PERSONAL STATEMENT

Asif is a Data Scientist with 12+ years of experience in data sciences, statistical solution-ing & technology consulting. He is expert in statistical modelling, predictive analytics pipeline design & implementation using advanced analytics, SAS, SPSS, python & R-project.

He has extensive experience in technology consulting and implementation across cyber defense, retail banking, capital markets, real estate, insurance & FP&A.

Over a decade he has worked for some of the leading firms including JPMorgan Chase & Co., HSBC, AIG, QNB, FCA, Barclays, Macquarie Group, Otsuka, Visa LATM, British Aeronautical & Engineering (BAE) Systems & Disney ABC across consulting, implementation & advisory.

SKILLS

- Statistical analysis, modelling, solution-ing & design
- Machine learning
- Advanced analytics & Decision Systems
- Technology consulting
- Data engineering & business intelligence
- Sales, pre-sales, presentations & orals
- python, R-project, SAS & SPSS

WORK HISTORY

Associate Architect – Data Sciences | Bangalore, India present

2019 -

Indecomm Digital (Encora Technologies)

Attributes retrieval

Real estate | python, AWS EC2, BERT, tensorflow

Attributes of a property play an important role in highlights, scoring uniqueness, information retrieval & property similarity index. Intuition was to process all possible textual data & retrieve tokens which qualify as established attributes. Qualified established tags were location aware. The algorithm derives embeddings from BERT and optimizing it for STS scores. BERT large, autoencoder & maxpooling was used for dimensionality reduction & embedding space optimizations. Algorithm makes use of transfer learning and tailor optimizes it for STS. Semantic representations, context & intent generation, embeddings clustering, PMI metric, topic coherence among others were established & analysed as part of the pipeline.

Label tagging automation

Real estate | python, mySql, AWS EC2, ELB, S3

Essentially a source to target mapping problem which couldn't be handled using traditional data engineering techniques. Source metadata was dynamic and non-standardized; traditional ingestion pipeline involved substantial manual efforts. Asif was responsible for design & implementation of supervised multi-label classification pipeline which would learn from data as well as metadata to predict the target labels. The pipeline involved n-grams (tfidf, count & hash) vector representations and transformation, md5 hashing imputation for metadata, feature engineering, link function optimization on logistic regression, coefficient / weights polling & multi-model pipeline.

Property metrics & lexical standardization

Real estate | python, postgis, mySql, raster-ing, AWS ELB, EC2

Information metrics rendering for higher propensity, intuition was to calculate sun score, walkability score, green score, hazard score among others for each listed property. Asif has developed an unsupervised pipeline using feature engineering, discretization, penalization & scoring along with postgreSQL postgis methods for linestring, polygon, envelope, intersection, extent, band & raster-ing.

Lexical standardization is an unsupervised pipeline to score similarity index on strings to avoid duplicate listings. Algorithm involved listing taxonomy, token vector representations, md5 & sha hashing, elastic-search, geo-fencing, cosine & pair similarity. Pipeline was served using uwsgi-nginx-AWS ELB on EC2 as an api.

Property orientation prediction

Real estate | python, image representations, AWS S3, EC2, hive, tensorflow

ML pipeline to access carbon footprint of a building through determining orientation (proxy for amount of sunlight it receives). Asif has solution-ed a supervised algorithm using image segmentation & inversion, network map analysis, street topography & image noise analysis. Convolution neural network (CNN) model based on OSMNX graph-from-point bbox 400 meters with point to line (line between nearest two nodes) intersection. Solution was deployed as an api on AWS EC2 along with AWS ELB for scalability. The api is handling millions of listings on daily basis.

BAE Systems Applied Intelligence

QRadar event analysis app (alternative to IBM Watson offering)

Cyber defense | python (qpylib), QRadar REST API, Databricks (Azure)

Python app to automate event - threat - alert lifecycle on a longer run and on a shorter run to expedite triage efforts and shorten the triage lifecycle. Events are logged and sourced from QRadar rest api. Asif was responsible for event analysis (hypothesis testing), feature extraction & treatment, type I error rate optimization, event re-routing, QRadar app sdk & simulation. He was also responsible for orals, presentation & story design.

MDR (Managed Detection & Response)

Cyber defense | Databricks (Azure), Fortinet gateway, pySpark

Project was conversion of a non-analytical rule-based scoring engine into predictive model based on device events for enhanced threat detection and analysis. Asif was responsible for established rule reverse engineering, EDA, univariate & bivariate analysis, feature qualification and ranking & link function optimization.

Analytics Architect | Doha, Qatar 2018 2017 -

Arita Solutions WLL (working for one of largest banks in MENA)

Customer Cluster Analysis

Retail & HNI Banking | python, CRM, market research

Optimal customer segmentation leading to enhanced product positioning & targeted marketing. Asif was responsible for fitment analysis & solution-ing. The pipeline involved deriving & optimizing embedding space & representations for each customer based on distributions around net worth, demography, institutions & market research.

Customer Propensity Model

HNI Banking | python, AWS, Tableau

Product propensity model for existing retail banking customers, to enhance cross selling capability and alpha generation. Asif was responsible for solution blue-printing, EDA, population representation, univariate, bivariate & multivariate analysis, data wrangling, feature engineering, mutual information analysis and overall supervised pipeline development.

Product research

Retail Banking | python, web scarping

Product perception & reach; as part of feedback analysis on multiple corpora from diversified medium. Baseline unsupervised model involved lemmatization & count vectorizer (bi / tri - grams).

Intent was to derive representations which scored high on STS index, overall aiding context retrieval. The pipeline involved token (word / sentence) embeddings along with transfer learning.

Customer Delinquency Model

Retail Banking – python, product-market analysis

ML model was designed to detect any potential customer delinquency traits for proactive exposure management. Asif was responsible for solution blue-printing, EDA, hypothesis testing & feature engineering, logistic regression analysis, fitting MLP (Multilayer Perceptrons) using Keras & ensemble methodologies.

Specialist Senior | Bangalore, India 2017 2015 -

Deloitte Consulting (US offices India)

Retail Analytics - Text Analytics & Web scrapping

Consumer Analytics - R, lexical analysis & Tableau

He was responsible for designing and implementation of a text analytics solution which will mine insights from REST API. The solution involved JSON based web scrapping, standard text analytics preprocessing pipeline, NLP and regex, corpus formation, information retrieval, normalization & TTR, hapax distribution and lexical variety.

Financial Forecasting (FP&A) - SARIMA

FP&A - R, Cognos TM1, Perspectives & Café

He was involved in a design and analysis of time-series forecasting algorithm which will predict forecasting measures while considering seasonality and trend for better financial planning and forecasting (FP&A) process. He was responsible for developing algorithms for forecasting using SARIMA & ETS, Naive and Snaive analysis, training data formulation, residual checkup and tuning, white noise analysis, ACF & PACF analysis, ML reconciliation with TM1 actuals.

Revenue, Expense & Allocations Planning – Forecasting Application

FP&A - Cognos TM1 & Analytics

Enterprise wide FP&A application development with revenue, expense and allocations planning. Enterprise wide FP&A application development with revenue, expense and allocations planning. Asif was responsible for Cognos TM1 TI / processes development, financial planning process design for revenue & expense planning, allocations planning, Tableau dashboard and workbooks, flex views, perspectives, presentation and UAT support.

Lead Consultant | Bangalore, India & New Jersey, US 2015

2013 -

Genpact

Market research – Pharma Pharma - Kalido DIW, base SAS & DB2 Consulting project to optimize and solution - analytics pipeline for sales reports & retrieval methodologies. He was responsible for analysis of current system, process analysis, process consulting, solution blueprinting, orals.

Enterprise wide reporting

Investment Banking - R project, Java scripting, Mashup services

Responsible for requirement gathering, client coordination and lead generation. He was also responsible for generating financial regulatory metrics (compliance), data analysis, segmentation, threshold setting & data attestation.

Enterprise Wide Reporting Framework

Investment Banking - Data Virtualization, Oracle Endeca & Technology Consulting

He was involved in analysis of current system & consulting, process optimization and proposal, solution blueprinting, report out, reporting tool fitment and ranking, demo and presentation. Proposed solution was implemented and Asif was involved in implementation of reporting framework metadata for ad-hoc analysis which involved drill up / down & across.

Module Lead | Bangalore, India 2013

2012 -

Mindtree

Geospatial Insurance Analytics

P&C Insurance - ESRI Maps & MicroStrategy reports

Geospatial view of exposure along with key metrics for cat modeling. He was involved in solution design, data and metadata modeling and overall agile methodologies. He was responsible for development of MDX reports and geospatial visualizations.

Consultant | London, UK & Pune, India 2012

2008 -

Capgemini

Enterprise Wide Operation Risk Management (ORM)

Retail Banking - Metadata Modelling & IBM OpenPages

Project involved an improved enterprise wide ORM implementation. He was responsible for designing, coding and implementation of ORM metadata model & was responsible for report development. He was also involved in requirement gathering, fixing defects, UAT & SAT coordination.

Improved Market Surveillance & Fraud Detection

Capital Markets - Cognos Analytics, ETL & Data Warehousing

Solution was designed to provide agile and evolving intelligence-based surveillance for market abuse detection and case management for financial instruments, in line with UK and EU legislation. Asif was

responsible for data transformations (ETL) jobs along with reports development. He was responsible for metadata modeling, data modeling and data – warehousing artefacts as well.

Enterprise Wide Reporting Framework

Corporate Banking - Cognos Analytics & Data Warehousing

Executive Dashboard provided a holistic view of bank's performance across geographies and LOBs. Various KPIs, alerts were developed which provided top management a holistic view of the business health. He was involved in report and analytics development using Cognos 8 BI, reports performance tuning, defect fixes, co-ordination for UAT & releases.

EDUCATION & CERTIFICATIONS

B-Tech (Electronics & Telecommunication Engineering) from Gandhi Institute of Engineering & Technology Gunupur under BPUT Rourkela, India; Awarded First Class (GPA 7.39).

- SAS Certified Base Programmer for SAS9
- Certification in Introduction to Oracle 9i: SQL
- MicroStrategy Certified Project Designer

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