Aysha M. Machingara

412-708-8419 | Chicago, USA | ayshamdm@gmail.com | LinkedIn | Github | Quora

EXPERIENCE

IBM   Sep. 2019 – Present
Data Scientist   *Financial Services Chicago, IL/ NYC, NY*

- **COVID Recovery Index:** Developed COVID impact planning strategy for fortune 50 automobile insurer in the US by predicting the impact of COVID on driving at a county level with a MAPE of 10% for 500 large US counties. Used ping data from cellphones and other socio-economic and epidemiological variables. Predicted the Unemployment rate using google trends on unemployments claims with 15% MAPE for 35 states. Formulated metrics and built a real-time dashboard for consumption by over 100 members and presented insights to CTO
  Technology Used: Python, pyspark, fbProphet, scikit, Tableau Server(TabPy)

- **Advanced Automation Platform:** Built an enterprise-ready micro-service, event-driven architecture on AWS for intelligent automation of claim handling and deployed in production, reducing manual work by 42k hours/year for fortune 50 automobile insurer in the US
  Technology Used: Python, SQL, sqlalchemy, Terraform, CI/CD - Gitops, AWS - lambda, SQS, DynamoDB, Secrets Manager, S3, Step Functions

- **Natural Language Processing:** Deployed NLP framework for analyzing regulatory compliance documents and identified gaps with existing controls as REST API for real-time prediction, delivering $12MM cost savings/year
  Technology Used: Python, Flask, Logistic Regression, Random Forest, Gaussian MM, Latent Dirichlet Allocation, scikit-learn, spaCy (Entity Recognition)

Affine Analytics   Feb. 2016 – Jul. 2018
Senior Data Scientist, Managing Consultant   *Bangalore, India*

- **Search Experience:** Implemented Statistical, hypothesis, and A/B testing for a leading search engine in Ads Display, improving Revenue/Page by 0.5-1%. Analyzed experiment sensitivity and implementation practicality. Formulated metrics to measure usability and total impact. Scripted optimized SQL queries to handle 500GB of data a day by analyzing Query Plans and pulled information from over 20 data sources to study user search behavior. Collaborated with stakeholders for influencing product decisions
  Technology Used: Python, PowerBI, Excel, Microsoft Cosmos BigData(SQL), PowerPoint

- **Proof of Concept Solutioning:** Collaborated cross-function with leadership, product, engineering, and sales to develop Proof of Concepts by identifying trends in Retail and Tech Domain. Converted two fortune 500 clients adding revenue of $1.5 MM
  Technology Used: Python, Azure, PowerPoint, draw.io, Tableau

- **Market Mix Optimization:** Developed a non-linear multiplicative model to optimize the marketing budget for a leading fitness tracker by handling over 10 data sources, increasing ROI by 8.3%. Built a scenario optimizer for budget planning
  Technology Used: Python, Excel Solver

- **Retail Pricing Optimization:** Deployed ML model for optimizing clearance markdown using Price Elasticity and spearheaded adoption across 400 retail stores improving revenue by 7-9%
  Technology Used: Python, pyspark, Teradata (SQL), Scipy Optimization

Mu Sigma   Jan. 2013 – May 2014
Trainee Decision Scientist   *Bangalore, India*

- **Retail Pricing Strategy:** Generated $30 MM across 1500+ stores for a leading fortune 100 retailer. Formulated metrics and performed clustering to identify price increment opportunities using national average, competitor presence, and customer price sensitivity. Built real-time dashboards to monitor and report impact to CEO
  Technology Used: Python, SQL, Hadoop, K-means, Tableau Server

- **Dashboard Automation Workflow:** Identified automation opportunities using in-house workflow and NLP for product description similarity, reducing manual intervention by 65% ($ 1MM savings/year). Delivered impact to C-executives in QBR
  Technology Used: Python, SQL, NLP(TF-IDF, Cosine Similarity), Tableau Server

EDUCATION

Carnegie Mellon University   Pittsburgh, PA
Master of Information Systems Management; GPA: 3.79   *Aug. 2018 – Aug. 2019*

Visvesvaraya Technological University   Bangalore, India
Bachelor of Industrial Engineering and Management; GPA: 3.90   *Sep. 2010 – May 2014*

Awards

- **Idea Award at IBM:** Most Impact on Society and the World for Financial Services through Analytics

- **Most Innovative Award at CMU:** Code4Pennsylvania Hackathon on Opioid crisis

- **Most Practical and Innovative Award from Flipkart:** International Gridlock Hackathon on using advanced analytics to ease city traffic

Entrepreneurship

Owĺś Nest   Jul. 2014 – Sep. 2015
CoFounder   *Bangalore, India*

- **Midnight Food Delivery Service:** First of its kind midnight food delivery service turning $5K in revenue in 2 months

Technical Skills

Languages: Python, SQL, VBA
Tools and Skills: Data Science, Machine Learning, Analytics, Data Visualization, Deep Learning, Statistics, Data Mining, Terraform, spaCy, Spark, Tableau, GIT, MS-Excel, Docker, PyCharm, Eclipse
Statistics:Statistical Testing, Hypothesis Testing, A/B Experimental Testing
Databases: Postgres, AWS-DynamoDB, AWS-RDS, MySQL, SQL Server
Cloud: AWS, Azure, IBM Cloud
Visualiztions: Tableau, PowerBI, AWS Dashboarding