ADVAIT RAMESH IYER

+1 315 395 5193 | aiyer01@syr.edu | https://www.linkedin.com/in/advait-iyer | https://advaitiyer.github.io

EDUCATION

Master of Science, Business Analytics Aug 2018 - May 2020
Syracuse University, New York

Bachelor of Technology, Mechanical Engineering Jul 2013 - Apr 2017
Maulana Azad National Institute of Technology, India

SKILLS

Programming	Python (Numpy, Pandas, SciPy, Matplotlib, Bokeh, Scikit-learn, NLTK), R (dplyr, ggplot2)
Machine Learning	Cluster Analysis, Tree-based Methods, Support Vector Machines, Gradient-based Methods
Statistical Learning	Linear Regression, Logistic Regression, Time Series Analysis, ANOVA, Hypothesis Testing
Analytics	SAS, SPSS, Google Analytics, Adobe Analytics, Alteryx, RapidMiner, KNIME, RedShift
Database	MySQL, PostgreSQL, MongoDB, AWS Athena, Hadoop, Spark, Pig, Hive, Kafka, Cassandra
Business Intelligence	MS Excel, VLOOKUP, Tableau, Power BI, Power Query, Looker, MicroStrategy, QlikView
Business Consulting	Marketing Mix, Competitive Intelligence, Go to Market, Portfolio Management, Forecasting

EXPERIENCE

Graduate Research Assistant, Whitman School of Management, Syracuse University Sep 2019 - Present

- Authoring paper which proposes a machine learning based approach to stochastic inventory management
- Representing demand generation and fulfillment as a discrete time Markov chain with 50+ transition states
- Devising best and worst case policies under variable market risk through 10,000 rounds of Monte Carlo simulations
- Predicting maximum profit for all policies through deep neural network, achieving mean forecasting error of $2

Data Analyst, Whitman School of Management, Syracuse University Dec 2019 - May 2020

- Enhanced alumni engagement by 10x as a part of the Strategic Initiatives team at the School of Management
- Automated scrapers to collect 8,000 alums data using Selenium, and built ETL pipeline on AWS EC2 Instance
- Compressed 80% of big data with dimensionality reduction in Python, and visualized alumni network in Neo4j
- Identified active alum communities across 10+ countries, and mapped student-to-alumni with 80% accuracy

Associate Analyst, SG Analytics Private Limited May 2017 - Jun 2018

- Curated market intelligence reports and provided business strategy services to 30+ clients across Americas & EMEA
- Liaised with C-level clients and research team to gather business requirements, test feasibility and establish scope
- Spearheaded digital transformation across departments by training 200+ employees on SAP HANA ERP usage
- Led team of 3 analysts in delivering competitive strategy to an automobile company, conserving $1.5 million in CAPEX

PROJECTS

Georgia PPE Inventory Management System (MySQL Server, Microsoft SSIS)
Designed relational DBMS for inventory management of 300+ manufacturers, hospitals, doctors, and warehouses in Atlanta area. Implemented stored procedures in Transact-SQL for 120+ KPIs, reducing reporting time by 40%.

ArcGIS-based Delay Prediction Tool (Dask, PySpark, Scikit-learn, GeoPandas, ArcGIS, OSRM API)
Investigated delays caused by weather and traffic density in NYC. Reduced 92% data dimensions with PCA & LDA, and removed autocorrelation with VIF. Benchmarked SVM, XGBOOST, and Random Forest achieving best accuracy of 72%.

Amazon Products Recommender System (Jupyter Notebook, NetworkX, NLTK, SciPy, AWS Athena)
Discovered educational, political & religious communities among 3 million+ products through Community Detection in Natural Language Processing (NLP) models. Stochastic Gradient Descent provided 63% accuracy in predicting popularity.

Human Resource Analytics for Employee Retention (SAS, Docker, RShiny)
Recognized association rules linking high salary to gender, marital status, and citizenship for 150,000+ employees. Created an RShiny dashboard comparing AUC-ROC curves, and realized best accuracy of 85.6% with Generalized Logistic Regression.

Smartwatch Market Intelligence and Sales Strategy (Qualtrics, Google Analytics, SPSS)
Studied brand loyalty and preference of 211 students for smartwatch purchasing through Qualtrics survey. Performed K-Means++ locating 5 clusters, and ran A/B tests for product marketing boosting sales by 32% across control groups.

Airline Customer Analytics (Jira, RStudio, Power BI)
Built NPS tracker for Southwest Airlines to track customer pain points and identify operational bottlenecks. Maintained JIRA scrum board optimizing team efficiency by 30%. Recommended operations strategy projecting 6% NPS improvement.

PUBLICATION

Dynamic Newsvendor Model for Optimistic and Pessimistic Policy-based Forecasting, Working Paper (Annals of OR)