Karthik Dulam

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SUMMARY

- 11 years of experience in application development and data modelling. Highly proficient in applying machine learning and deep learning frameworks to answer unique business problems.

EDUCATION

Georgia State University, J. Mack Robinson College of Business		**Atlanta, Georgia**
Master of Science in Information Systems – **Big Data Analytics**	GPA: 3.96	Dec, 2016
Merit Research Assistantship Recipient		
Jawaharlal Nehru Technological University,		**Hyderabad, India**
B. Tech - Electronics and Communication Engineering	GPA: 3.83	May, 2010

CERTIFICATIONS

SAS Certified Base Programmer for SAS 9, *R Programming* from John Hopkins University – Coursera, *Querying with T-SQL* - Microsoft Certified; *Neural Networks and Deep learning* – deeplearning.ai; *Improving Deep Neural Networks, Hyper parameter tuning* – deeplearning.ai, **Oracle Cloud Certified**

SKILLS & KNOWLEDGE

Technologies: Python, R, Machine Learning, Deep Learning, SAS, SQL, Scikit Learn, Statistical Analysis, Java
Databases: Oracle, MySQL, DB2, MongoDB, Teradata, SQL Server
BI Tools: Tableau, QlikView, PowerBI, Birst

Tools: Azure Machine Learning Service, Azure Data Factory, SAS Enterprise Miner, SAS Studio, R Studio, Azure Machine Leaning Studio, Salesforce.com, IBM Watson Analytics, PowerBI, Anaconda, Marketo, Jitterbit
Operating Systems: OS/400, Linux, UNIX, Windows

WORK EXPERIENCE

Grant Thornton LLP	**Toronto, ON, CA**
Data Scientist, Manager – Information Technology Services	May'21 – Current

Technologies/Tools –R, Python – Sklearn, Power BI, SQL Server, Microsoft Azure, Salesforce

- Lead Architect for implementing data lake and Enterprise data warehouse (Azure Synapse Analytics) to support real time analytics efforts. Eliminated manual intervention to run silo reporting for business units saving ~15hrs a week of resource utilization.
- Designed and developed statistical models using R and python for predicting churn and User segmentation based on persona.
- Analyzed client history data to suggest cross-sell/upsell opportunities across Tax, Assurance and Advisory services.

Trader Corporation (AutoTrader)	**Missisauga, ON, CA**
Data Scientist	Sep'20 – Apr'21

Technologies/Tools –R, Python – Sklearn, Power BI, SQL Server, Google Big Query, Salesforce

- Designed phase I of Customer Segmentation to allow unique insights for the sales team. Model projected to drive additional revenue by creating unique customer touchpoints.
- Created Power BI dashboards exposing the customer segmentation data across executive team.
- Analyzed product cross-sell and up-sell opportunities and presented the findings to executive stakeholders, leading to the creation of a new business case.
- Determined customer LTV and created churn model to predict the customers likelihood of churning in the next 3 months.

MDVIP Inc.   **Boca Raton, US**
Sr Data Scientist/Statistical Modeling Analyst II (Team Lead)   Apr'19 – Aug'20
Technologies/Tools –R, Python – Sklearn, Power BI, SQL Server 2008, Birst, Azure Machine Learning/Data Factory

- Responsible for coordinating with business stakeholders for requirements gathering. Led and delivered machine learning projects from business case analysis to production deployment.
- Researched and utilized external data from government and private sources to create new features for physician performance, thereby increasing model accuracy by ~9%.
- Created ensemble models to predict the likelihood of member joining MDVIP (model trained on 1.3 billion user records) using Gradient boosting and regression trees. Directly led to improved KPI's – 'Time to contact' (37% lift) and 'Time to Join' (43% lift) for new members.
- Created member churn prediction models to predict the probability of cancellation with 91% accuracy. Successfully retained ~2000 members equaling to about ~$865000 in annual revenue savings.
- Designed and developed multiple models using Random Forest and Support Vector Machine with propensity data and determined likelihood of physician performance under MDVIP. Model helped bring in the sales contact to contract ratio from 10:1 to 5:1.
- Automated production predictive models using Azure Data factory for data integration and Azure Machine Learning studio for experiments. Eliminated manual intervention to run the above jobs saving ~5hrs a week of resource utilization.
- Designed and developed statistical models using R and python to predict the patient reach for a prospective physician. Successful delivery of the product to the sales team with a predictive efficiency of 88%.
- Developed Regression – Poisson, Lasso models and Time series models for patient membership to estimate available market size in US/Canada.
- Created models to predict the patient base for the prospect physicians using Clustering and CART algorithms.

NetCracker Technology Solutions   **Hyderabad, India**
Analyst, Software Development   July'10 – Dec'15
Technologies/Tools: Oracle, PL-SQL, Stored Procedures

- Technical Lead for one of the most widely installed Business and Operations Support Systems (BSS/OSS) used by Major Cable and Communications service providers (ICOMS). Designed and developed more than 25 enhancements for ICOMS product.
- Managed Client expectations by facilitating open communication between the teams.
- Designed Data models for ICOMS and RBM integrating two proprietary products of NetCracker. Created Data Audit reports using SQL to identify data issues aiding data governance.
- Successfully translated complex business requirements to ensure accurate processing of transactions ranging from $2M - $10M.
- Led a team of 6 developers and resolved ~100 High priority billing issues - ~$10 million impact - for Cox, TWC, SDL for ICOMS product providing quick turnaround time.
- Analyzed daily data usage records ~15GB using PL-SQL and uncovered seasonal trends in customer's data usage in-turn helping marketing team launch new services. Created advanced spreadsheets using Pivot tables and Scripting.
- Analyzed SQL scripts including performance, diagnosis and troubleshooting of problem scripts and designed database solutions.
- Reviewed architecture decisions for proprietary product ICOMS and RBM Integration.

AWARDS & INVOLVEMENT

- Received "Win of the Month" award for analysis into revenue spend by churn dealers across Trader marketplace products.
- Received MDVIP Employee of the Quarter Award – Oct 2018, for outstanding work in predicting member cancellations and improving retention rate.
- Received Excellence award from NetCracker Technology solutions "Spotlighting Employee Excellence" consecutively for three years, 2012 - 2014. Received "Power of One" award from NetCracker Technology Solutions for outstanding consulting work.