



## Karthik Dulam

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### SUMMARY

- Over 8 years of experience in application development and data modelling with profound knowledge in Cable, Telecom and healthcare industry.
- Highly proficient in designing innovative Predictive Analytics frameworks using SAS, R & Python and BI Dashboards.

### EDUCATION

<b>Georgia State University, J. Mack Robinson College of Business</b>		<b>Atlanta, Georgia</b>
Master of Science in Information Systems – <b>Big Data Analytics</b>	GPA: 3.96	Dec, 2016
<i>Merit Research Assistantship Recipient</i>		
<b>Jawaharlal Nehru Technological University,</b>		<b>Hyderabad, India</b>
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*

### SKILLS & KNOWLEDGE

**Technologies:** R Programming, SAS, SQL, Python -Scikit Learn, Machine learning algorithms, Statistical Modelling, Tableau, C, C++, JAVA, J2EE, Hadoop, Spark, Hive, MapReduce, Servlets, Web services, spring, Perl

**Databases:** Oracle, MySQL, DB2, MongoDB, Teradata, SQL Server

**BI Tools:** Tableau, QlikView, PowerBI, Birst

**Tools:** SAS Enterprise Miner, SAS Studio, R Studio, Azure Machine Learning Studio, Azure Data Factory, ANT, Maven, Tortoise SVN, Jboss, Web Logic, Eclipse IDE, PL-SQL, Salesforce.com, IBM Watson Analytics, PowerBI

**Operating Systems:** OS/400, Linux, UNIX, Windows

### WORK EXPERIENCE

<b>MDVIP Inc.</b>	<b>Boca Raton, US</b>
<b>Statistical Modeling Analyst</b>	Jan'17 – Current
<i>Technologies/Tools –R, Python – Scikit learn, Tableau, SQL Server 2008, Birst, Azure Machine Learning/Data Factory</i>	

- Designed and developed ensemble models using Random Forest and Support Vector Machine with propensity data and determined likelihood of physician performance under MDVIP model. Model helped bring in the sales to contract ratio from 10:1 to 5:1.
- Automated production predictive models using Azure Data factory for data movement and Azure Machine Learning studio for experiments. Reduced manual intervention to run the above jobs.
- Created new ensemble models to predict the likelihood of member joining network using Extreme Gradient boosting technique. Directly led to improved KPI's – 'Time of contact' and 'Time to Join' for new members.
- Created new churn prediction models for the business which predict the member's probability of cancellation with 91% accuracy. Successfully retained ~1000 members equaling to about ~\$865000 in revenue saved.

### IT Intern, Information Management

May'16 – Dec'16

*Technologies/Tools – SAS Base, R, Python, Tableau, SQL Server 2008, Birst*

- Designed and developed statistical models using SAS, 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%. Worked with CMS datasets for years 2012/13/14.

- Developed linear regression and Logistic regression models in R to predict the likelihood of patient conversion based on demographic data.
- Used tableau with SQL server to visualize and presented to Executive leadership. Created SQL scripts for data extraction and reporting.
- Developed Regression – Poisson and Negative Binomial models and Time series models for patient membership to estimate available market size in US/Canada.
- Designed and developed machine learning models to predict the patient base for the prospective physicians using Clustering and CART algorithms.

### **Georgia State University**

Graduate Research Assistant

**Atlanta, US**

Jan'16 – May'16

- Performed data analysis using SQL to validate survey data for the CEAR.
- Created heat maps and Globe map visualizations in PowerBI to track surveys conducted in Nigeria. Designed database in MySQL and worked with application hosting platform Arvix.com.
- Created new survey spreadsheets and present data utilizing advanced Excel functions – Pivot Tables, Lookups.
- Conduct knowledge training sessions for under graduate students in the fields of statistics, predictive analytics.

### **NetCracker Technology Solutions**

Analyst, Software Development

**Hyderabad, India**

July'10 – Dec'15

*Technologies/Tools: SAS Base, Oracle, PL-SQL, Stored Procedures, SAS – Enterprise, MS Office Tools*

- Designed Data models for ICOMS and RBM integrating two proprietary products of NetCracker. Created models to help predict customer churn for COX Communications. Created Data Audit reports using SQL to identify data issues aiding data governance.
- 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.
- Responsible for analysis of current SQL scripts including performance, diagnosis and troubleshooting of problem scripts and designing database solutions.
- Onsite Consultant for multiple telecom clients in North America. Managed 3 distinct sub-projects to successful closure as Technical lead.

### **ACADEMIC PROJECTS**

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- *Project 1 - Sentiment Analysis of Customer reviews*  
*Technologies/Tools: Rapid Miner, SAS E-miner, SAS Base, MS Office, Python*  
Built a model utilizing text analytics and mining the customer review data for predefined sentiment words. The input data was collected by web scraping travel website using python.
- *Project 2 – Predicting performance of US Election Candidates*  
*Technologies/Tools: Oracle, Tableau, R, Python, Machine Learning*  
Integrated with different social media platforms such as Twitter and Facebook and analyzed the sentiment of the information being posted by different candidates.

### **AWARDS & INVOLVEMENT**

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- Received 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
- Co-Founder, Apna Diya – Volunteered to support educational needs for under privileged students by supporting tuition costs.