

## Karthik Dulam

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### SUMMARY

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10 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

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

### CERTIFICATIONS

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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*  
Tableau, Data Scientist Skill Badge – Tableau

### SKILLS & KNOWLEDGE

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**Technologies:** Python, R, Machine Learning, Deep Learning, NLP, SQL, Scikit Learn, Keras, PyTorch, TensorFlow, 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 Learning Studio, Salesforce.com, IBM Watson Analytics, PowerBI, Anaconda, Marketo, Jitterbit, Hadoop, Spark

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

### WORK EXPERIENCE

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<b>MDVIP Inc.</b> <b>Sr Statistical Modeling Analyst / Sr Data Scientist (Team Lead)</b>	<b>Boca Raton, US</b> Apr'19 – Current
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*Technologies/Tools – R, Python – Scikit-Learn, TensorFlow 2.0, Power BI, SQL Server 2016, Birst, Azure Machine Learning & Data Factory, NLP, Salesforce*

- Led a team of 4 data scientists to create 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 estimate 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 IQVIA claims 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.
- Deployed production pipelines for predictive models using Azure Data factory for data integration and Azure Machine Learning for inferencing integrated with Salesforce. Eliminated manual intervention to run the above jobs saving ~5hrs a week of resource utilization.

## Statistical Modeling Analyst/Data Scientist

May'16 – Apr'19

*Technologies/Tools – R, Python, Sklearn, Tableau, SQL Server 2016, Birst, Azure Machine Learning/Data Factory, Salesforce*

- Deployed 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 linear regression and Logistic regression models in R to predict the likelihood of patient conversion based on demographic data.
- Used tableau/Birst with SQL server to visualize data “Story-telling” in dashboards for Executive leadership. Led to accurate tracking and improved YOY performance metric by 15%.
- Developed Regression – Poisson, Lasso 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, IBMi - DB2*

- 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.
- 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.
- 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

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- Received MDVIP IIPLT award – Apr 2020, for excellent work in analyzing covid-19 hotspots and evaluate marketing spend channels to streamline new member acquisition.
- 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.