# **Rakesh Harish**

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# Data Science Analyst | BI/Data Engineer | Business Intelligence

Experienced Data Science & Analytics Practitioner with sound knowledge and experience in different phases of software development life cycle. Skilled in building supervised and unsupervised models employing Machine Learning techniques.

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#### **Professional Experience**

#### **Intelligence Analyst, SSG Business Analytics**

Atrium Health, Charlotte, NC

Sept 2018 to Present

- Responsible for implementing a claims-based market analysis tool and integration of analytics with other State and internal market data.
- Assist with data cleaning & modelling, audits and establishment of appropriate business rules to apply to ensure analytic functionality.
- Synthesize disparate, complex datasets to determine strategic growth opportunities, assess provider leakage, and impact of market dynamic changes for the System's primary and regional markets. Perform necessary statistical analysis leveraging the analytical tools and make decisions based on the results.
- Design and develop dashboards and reporting mechanism to share with service line and senior leadership, to include, but not limited to dashboards in Microsoft Power BI, Tableau and SAS Enterprise Guide.
- Tools & Technologies: Python, R, IBM Netezza, SQL Server, SAP Business Objects, Power BI, Tableau, SAS, McKesson Performance Analytics.

#### **Data Analytics Analyst (Intern)**

Inmar Inc., Winston-Salem, NC

Jan 2018 to May 2018

- Responsible for implementing ML data models and data visualization dashboards for Retail and Manufacturing clients.
- Analyzed raw data and performed necessary data cleansing, statistical analysis, and provided insights on the data through reporting solutions which included key performance reports for Sales Analysis, Market Penetration and Coupon Promotion Analysis.
- Tools & Technologies: R, Python, Tableau, Kognitio, Hadoop, Hive, PostgreSQL, MySQL.

#### **Data Engineer**

Hewlett Packard Enterprise, Bangalore, India Nov 2014 to Dec 2016

- Responsible for developing and implementing the dimensional data models and BI workflows and reporting solutions for a heterogeneous clientele distributed over Americas, EMEA & APAC.
- Requirements gathering, impact analysis, developed BI prototypes by involving with the presales/sales team; implemented & deployed OLAP Data Marts to production; Sales/Market data analysis; and prepared technical documentations.
- Strategized and executed the deep root analysis of the applications identifying the bottlenecks and suggesting improvements to the system.
- Technologies used: Tableau, R, Python, Power BI, Cognos BI, Informatica, Sybase IQ, SQL Server, IBM DB2, Shiny, Matplotlib, ggplot2.

## **Academic projects**

- Healthcare Data Analysis on PIMA Indian Diabetes Database: Applied various data
  analysis techniques, created visualizations and interpreted the models to explain the reason
  for high diabetic outcome among the PIMA Indian women. Performed exploratory data
  analysis, built supervised models and predictive models. Languages and tools used: R
  Programming, R Studio, WEKA and Tableau.
- User Reviews analysis: Applied textual analysis for subjective/sentimental remarks and
  inferred their statistical equivalence using machine learning algorithms. The goal of the
  project is to predict the rating of a product based on reviews, so that a user can decide
  whether to buy the product or not just looking at ratings instead of reading all the reviews
  using Python and Tableau.
- **Human Resource Analytics:** A Scrum/Agile project to develop an HR tool a recommender system using Machine-learning techniques that can possibly categorize employees' risk of leaving. This can help the internal structure of the company to assess the risk of talented people quitting. Languages and tools used: Python, PyCharm, Advance Excel and Tableau.
- Database design and implementation of an Internet Bookstore: Developed a DB for a local bookstore and designed a simple UI/website for browsing through the books, orders and customer information using PHP, HTML5, CSS3, MySQL.
- **Data storytelling:** Analyzed the operations data and developed data visualizations dashboards for a manufacturing and a retail company data. The Tableau dashboard was embedded in a website developed using Bootstrap.
- Forest cover type prediction using PySpark: The objective of this project is to build a
  predictive model to predict and classify the forest cover type (the predominant kind of tree
  cover) from strictly cartographic variables using supervised Machine Learning algorithms from
  scratch in Cloud computing environment. Languages and tools used: Python, Spark,
  Bootstrap.

#### Education

Master of Science – Computer Science 2017 to 2018 (Data Science specialization) GPA: 3.9/4

University of North Carolina, Charlotte

**Bachelor of Engineering** 2010 to 2014

**Electronics & Communication Engineering** GPA: 3.5/4

Visvesvaraya Technological University, Bangalore, India

# **Tools of Trade**

**Programming:** Python, R, JavaScript, PHP, HTML5, CSS3, SQL

**Databases:** Sybase IQ 15.2/15.4, MS SQL Server 2012/2014, Oracle, MySQL, DB2, Hadoop/Hive, Kognitio, IBM Netezza

**Analytics and Reporting Tools:** Hadoop, Spark, AWS, ETL, IBM Cognos BI, SAS, Tableau, Power BI, SAP BO

ML Modeling Techniques: Supervised learning (linear regression, logistic regression, Naive Bayes classifier, KNN, Decision trees, random forests, SVM), Unsupervised learning (kmeans, kmodes, hierarchical clustering), Association rules - data mining, Descriptive and Predictive modeling

# **Significant Professional Achievements**

At Atrium Health

- Responsible for ensuring a successful implementation of claims-based market analysis tool suite and integration of analytics with other State and internal market data.
- Suggested and successfully implemented Data Viz. dashboards involving Market Analysis and Strategic growth analysis replacing the old style of BO reporting.

#### At HP

- Shepherded client presentations for a presales project; identified opportunities for new BI initiatives leading to the increase in the revenues.
- Designed and developed a Business Intelligence Proof-of-Concept for a top notch Swedish Industrial client.
- Honored the "HP Making a Difference" and "HPE Wall of Fame", two prestigious awards at HP/HPE for client commitment and innovative BI solutions.

## **Skills and Competencies**

Machine Learning
Knowledge Discover
Big Data
Market Analysis
Data Warehousing

BI/Data Visualization
Project Management
Analytical Thinking
Decision Making
Problem Solving

### **Certifications**

**Spark and Python for Big Data with PySpark** 

Machine Learning A-Z™: Hands-On Python & R In Data Science

ITIL V3 Intermediate Certified – IT Service Operations

**IBM Certified Developer** – BI OLAP Models

**IBM Certified Designer** – BI Reports