

# Satvik Shetty

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## ACADEMICS

<b>Master of Computer Science</b>	North Carolina State University	Dec 2017	GPA: 4.0
<b>Bachelor of Engineering</b> in Computer Engineering	University of Mumbai, India	June 2014	First Class w/ Distinction

**Key Courses:** Database Management System, Automated Learning & Data Analysis (ALDA), Design & Analysis of Algorithms, Data Guided Business Intelligence, Advanced Data Structures, Artificial Intelligence, Foundations of Data Science, Introduction to Big Data, Data Intensive Computing, Inferential & Descriptive Statistics, Data Driven Decision Making

## TECHNICAL SKILLS

**Languages:** Python, R, Java, SAS, C++, C, HTML, CSS, JavaScript  
**Databases:** PostgreSQL, MongoDB, Oracle 12c, MS SQL, MySQL  
**Data Visualization / Reporting:** Tableau, Pentaho, Microsoft Excel, Power BI  
**Tools / IDE:** RStudio, PyCharm, Eclipse, Android Studio, SAS Studio, Jupyter, Git  
**Frameworks:** Apache Spark, Apache Kafka, Apache Hadoop

## PROJECTS

### Machine Learning Challenge: Predicting AD clicks [Tableau, Python]

- Predicted the probability of an AD being clicked using Extreme Gradient Boosting (XGBoost) and CatBoost Classifiers
- Visualized data using Tableau to understand feature significance and performed the ensembling of models in Python

### Multi-label Text Classification [R, Python]

- Performed semi-supervised classification on The Guardian news data-set into seen and unseen topics
- Employed various Natural Language Processing (NLP) techniques on text data for feature generation
- Analysed the performance of various ML classification algorithms using R's mllib package and Python's scikit package

### Attributed Graph Community Detection: Market Segmentation [R, Python]

- Implemented Structure-Attribute Clustering algorithm for attributed graphs to identify the relevant market segments
- Evaluated the obtained segments using influence propagation in R

### Prediction using Bayesian Regression [Python]

- Predicted the price variations of Bitcoin in Python using scikit, numpy, pandas and statsmodels packages

### Twitter Sentiment Analysis [Zookeeper, Apache Kafka, Apache Spark Streaming, PySpark]

- Performed sentiment analysis on real-time tweets using Python, Apache Spark Streaming, and Apache Kafka

### Recommender System using Collaborative Filtering [Jupyter, Apache Spark, PySpark]

- Recommended new artists to a user based on listening history on an audioscrobbler dataset using Apache Spark and Python

### Database Application & SimpleDB [Java, Oracle 12c]

- Built a simple Swing (Java) application with Oracle 12c (backend) to track/manage patient health status
- Implemented FIFO buffer replacement policy and Undo-Redo recovery algorithm in the existing SimpleDB server

### Predictive Analysis: Player Transfers in Soccer [R, Python, SQLite]

- Built a player transfer prediction model using K-means and DBSCAN clustering in Python/R as part of the ALDA course
- Predicted the outgoing (weakest player) and incoming players (replacements) for a team through statistical analysis in R

## WORK EXPERIENCE

**2 YEARS**

### EdgeVerve Systems Limited, Pune, India

**Aug '15 – Jul '16**

*Product Integration Engineer / Business Intelligence Analyst*

- Consolidated, verified, and analyzed data received from distributors for major FMCGs across various geographies
- Generated sales, forecast and inventory reports to help visualize, strategize, and understand the data via the tool Pentaho
- Optimized the target data extraction query in PostgreSQL by 90% - brought down the run time from 3 hours to 10 mins
- Part of Android development team to create an application for automatic offline data retrieval component

### Infosys Limited, Pune, India

**Jun '14 – Jul '15**

*Systems Engineer / Data Analyst*

- Wrote stored procedures in MS SQL Server for data rectification, validation, and extraction
- Performed data analysis using Excel and MS SQL to ensure correctness and uniformity despite differences in ERP systems
- Developed and maintained a Java based online retail store application called 'JCart', as part of the training in core Java

## ACHIEVEMENTS

- Ranked 9<sup>th</sup> among 5567 in the HackerEarth Machine Learning Challenge in predicting the probability of AD clicks
- Among the top 5% in the *Growing Instability* Challenge (Multi-Label Text Classification) on [datasciencechallenge.org](https://datachallenge.org)
- Team captain of the intra-college football team: Winners in 2014, 2013 and Runners up in 2012