

# Satvik Shetty

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## ACADEMICS

<b>Master of Computer Science</b> [Data Science]	North Carolina State University	May 2018	GPA: 3.96
<b>Bachelor of Engineering</b> in Computer Engineering	University of Mumbai, India	June 2014	First Class w/ Distinction

**Key Courses:** Automated Learning & Data Analysis, 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, Object Oriented Design & Development

## TECHNICAL SKILLS

**Languages:** Python, R, Java, SAS, C++, HTML, CSS, JavaScript, Ruby  
**Databases:** PostgreSQL, Oracle 12c, MS SQL, MySQL, MongoDB (NoSQL)  
**Data Visualization / Reporting:** Tableau, Pentaho, Microsoft Excel, Power BI  
**Tools / Libraries:** RStudio, IntelliJ, Android Studio, SAS Studio, Jupyter, Git, Bootstrap, JQuery  
**Frameworks / Platforms:** Apache Spark, Apache Kafka, Apache Hadoop, Django, AWS

## PROJECTS

### Scalable Search Engine [Python, AWS]

- Built an almost real-time scalable search engine pipeline capable of handling high volume of text/news articles and high velocity of queries. AWS Kinesis, Lambda, S3 and Elasticsearch (indexing) were used for the same
- Integrated a gradient boosted model to automatically classify documents into categories to include contextual information

### 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

### Health Insurance Selector [Python, Django, SQLite]

- Developed a web application in Django to return the best health insurance plans based on limited user inputs
- Designed a modified k-NN approach for plan matching and performed sentiment analysis on web scraped reviews

### 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

### 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

### 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**

**NC State - CIPM**, Raleigh, NC

**Oct '17 – Current**

*Programming Intern*

- Developing a Django web application to assist the USDA in performing the spatiotemporal risk analysis of Fruit Flies

**EdgeVerve Systems Limited**, Pune, India

**Aug '15 – Jul '16**

*Product Integration Engineer / Business Intelligence Analyst*

- Analyzed & processed data and generated reports to help visualize, strategize, and understand the data via 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*

- Performed data analysis & wrote stored procedures 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)