

# Akshay Bhatia

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## Education:

### **MASTER OF SCIENCE | MAY 2018 | RUTGERS UNIVERSITY, NEW BRUNSWICK, NJ**

- Major: Computer Science
- GPA: 3.1/4
- Relevant Courses: Data Structures and Algorithms, Introduction to Artificial Intelligence, Database Management Systems Implementation, Text Mining and Big Data Analytics, Introduction to Computational Robotics, Software Engineering of Web Apps

### **BACHELOR OF ENGINEERING | MAY 2016 | SARDAR PATEL INSTITUTE OF TECHNOLOGY, MUMBAI, INDIA**

- Major: Information Technology
- GPA: 7.1/10
- Relevant Courses: Data Structures, Object Oriented Programming Methodology, Structured Programming Approach, Advanced Internet Technology, Distributed Systems, Operating Systems, Software Project Management, Computer Networks, Data Mining and Business Intelligence, Intelligent Systems

## Technical Skills:

**Operating Systems:** Windows 7/8/10, Linux (Ubuntu 14 and later)

**Programming:** Python, Java, C, C#, HTML/CSS, JavaScript, PHP

**RDBMS:** Oracle, MySQL, PostgreSQL, SQLite

**Others:** Android SDK, Amazon Web Services(AWS), Google Compute Engine, Apache SPARK

## Experience:

### **PART TIME LECTURER | RUTGERS UNIVERSITY | JANUARY 2017 – PRESENT | NEW BRUNSWICK, NJ**

- Conducted weekly recitations for the course CS 110: Introduction to Computers and their Applications in Spring and Fall semesters and evaluated the performance of over 100 students
- Established an interest in fundamental topics of programming in non-CS majors and gained excellent ratings for teaching effectiveness in the Student Instructional Rating Survey at Rutgers

### **ANDROID APPLICATION DEVELOPER INTERN | GRUH MAINTENANCE AND BILL PAY CORPORATION PVT. LTD. | MAY 2014 – JULY 2014 | MUMBAI, INDIA**

- Developed an Android application to aid in administrative operations of housing societies in Mumbai
- Created an intuitive User Interface and designed multiple modules to interact with REST services and fetch data in JSON format
- Launched the application on the Google Play Store ([link](#))

## Projects:

### **EXPERIMENTS WITH REDDIT COMMENTS | 2017 | Python, Apache SPARK, Google Cloud Platform**

- Analyzed one month of Reddit comments using Apache Spark and trained a LSTM recurrent neural network on data from specific subreddits in order to predict comments using deep learning strategies
- Gained key insights about the data and visualized it in Apache Spark

### **PATHFINDING AND COLLISION DETECTION IN VIRTUAL ENVIRONMENT | 2017 | Python**

- Implemented the Rapidly-exploring Random Trees (RRT) algorithm in order to find a path between two points in an environment and developed collision detection techniques to avoid obstacles in the environment
- Improved the algorithm for use with polygonal robots in the environment

### **STOCK MARKET ANALYSIS AND PREDICTION TOOL | 2017 | Python, Django, MySQL, CoffeeScript, Bootstrap**

- Developed a web based application which presented users with a dashboard to buy/sell stocks
- Applied Machine Learning techniques such as Bayesian Curve Fitting, Artificial Neural Networks and Support Vector Machines to historical and real-time data of various stock prices and predicted whether stock of a particular company should be bought or held or sold.

### **CHESS DATA ANALYTICS USING HADOOP | 2016 | Java, AWS**

- Analyzed 22 GB of chess data to determine statistics using Amazon's Elastic MapReduce (EMR) and S3
- Determined percentage of victories for players using Black and White and number of draws for 28 million records

### **PREDICTIVE AND CORRECTIVE TEXT INPUT FOR DESKTOP EDITORS | 2015-2016 | C#**

- Developed an improved text editor for Windows machines using Visual Studio(C#). Implemented suffix trees and utilized n-grams and frequency analysis to facilitate word prediction
- Authored and presented a technical paper regarding the same at the *International Conference on Advances in Human Machine Interaction*, 2016 which was published in the IEEE Xplore Digital Library