Akshay Bhatia

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EDUCATION:

Rutgers University, New Brunswick, NJ — Sept 2016 - May 2018
Master of Science in Computer Science
Relevant Courses: Data Structures and Algorithms, Software Engineering of Web Apps, Artificial Intelligence, Text Mining and Big Data Analytics, Database Systems Implementation

University of Mumbai, Mumbai, India — Aug 2012 – May 2016
Bachelor of Engineering in Information Technology
Relevant Courses: Object Oriented Programming, Operating Systems, Data Mining and Business Intelligence, Software Project Management

TECHNICAL KNOWLEDGE:

Programming Languages:	Java, Python, C, C#, JavaScript, PHP, HTML5/CSS3
Databases:	MySQL, PostgreSQL, MongoDB, SQLite, Oracle
Frameworks and Tools:	Django, Android SDK, NodeJS, AngularJS, jQuery, numpy, pandas, Jira, Git
Big Data / Machine Learning:	Apache Spark, Hadoop, AWS, Google Cloud Platform, Keras, Tensorflow

WORK EXPERIENCE:

ESocietyBill and Management Services LLP, Mumbai, India — May 2014 – July 2014
Software Developer Intern
- Developed an Android application to aid housing communities in Mumbai
- Created an intuitive User Interface and designed modules to interact with RESTful APIs and fetch JSON data
- Launched the application on Google Play Store

Suven Consultants and Technology Pvt. Ltd, Mumbai, India — Dec 2013 – Jan 2014
Web Developer Intern
- Developed a fully functional e-commerce web application using HTML5 / CSS3, PHP, JavaScript, jQuery, AJAX and MySQL
- Designed dynamic modules and also integrated payment methods for purchases
- Received "Web Technologist – Level 1" certification from Monster India

Rutgers University, New Brunswick, NJ — Jan 2017 – May 2018
Teaching Assistant / Part Time Lecturer (CS110: Introduction to Computers and their Applications)
- Constructed, implemented and executed an effective lesson plan for a diverse group of college students
- Taught logic and thought building techniques for programming using Scratch

PROJECTS:

Path finding and Collision Detection in Virtual Environment (Python, numpy) — Nov 2017- Dec 2017
- Implemented the Rapidly exploring Randomized trees algorithm for driving a polygonal robot from a start point to an end point in a virtual grid containing virtual obstacles and visualized the virtual environment using matplotlib
- Discovered an optimal path by combining the algorithm with common graph searching techniques like Breadth First search
- Tested the algorithm for various start and end points and achieved about 95% accuracy

Stock Market Analysis and Prediction Tool (Python, Django, PostgreSQL, Bootstrap, CoffeeScript) — Jan 2017 - May 2017
- Designed a web-based application to help users in buying/selling stocks
- Developed a dashboard that presented users with real-time and historical information of stocks of various companies
- Predicted trends of stock prices using machine learning techniques such as Bayesian curve fitting, support vector machines and Artificial Neural Networks

SimpleDB (Java) — Oct 2016- Nov 2016
- Implemented 3 joining algorithms in SimpleDB, a Java-based database management system namely Simple Nested Loop, Page Nested Loop and Sort Merge Join
- Implemented the BufferPool class for caching pages and HeapFile access method to read/write data on disk

Predictive and Corrective Text Input for Desktop Editors (Java) — Aug 2015- May 2016
- Designed a text editor for Windows that facilitated next word prediction and autocorrect functionality
- Implemented suffix trees to optimize storage of words and utilized Google's n-grams and frequency analysis for word prediction