Aditya Shirode

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Education

Master of Science in Computer Science — GPA: 3.56/4.00
North Carolina State University, Raleigh, NC — August 2015 – May 2017

Bachelor of Engineering in Information Technology — GPA: 3.73/4.00
University of Mumbai, Mumbai, India — August 2011 – May 2015

Relevant Coursework

Design and Analysis of Algorithms, Algorithms for Business Intelligence, Database Systems, Graph Data Mining, IoT Analytics, Software Engineering, Artificial Intelligence, Spatial Analytics, Foundations of Data Science

Technical Skills

Proficient : Python, Java
Intermediate : R, HTML, CSS, Node.js, SQL, PL/SQL, SAS, Git
Familiar with : Android Programming, C++, Apache Spark, MATLAB, Flask, Angular, Django

Projects

Course Management System — February – April 2017
- Designed a relational database application while learning **PL/SQL** and **Java**.
- The application manages data about students, staff, courses, and, handles enrollment, billing, and transcripts.

Anomaly Detection in Time Evolving Graphs — October 2016
- Implemented NetSimile algorithm to detect anomalies on a collection of time-evolving graphs, using **Python**.
- Calculated eigen-behavior over a sliding window to calculate moving average based on set of extracted features, such as degree of node, clustering coefficient, edges in ego-net.

GitHub Bot for Bug Lifetime Prediction — August – November 2016
- Designed a bot which commented the expected lifetime of bugs submitted on GitHub issues, using **Node.js** and **GitHub** API.
- Developed and trained the machine learning prediction model in **R**, using archived Bugzilla data and features such as bug severity, priority, number of comments.

Optimal Network Paths on Internet — March – May 2016
- Explored a set of 15 chronological directed, dynamic, real-world graphs to predict the optimality of a given route in future graphs, using **python-igraph,** and **R**.
- Probabilistic prediction was used on models created using Random Forests, Linear Regression, Markov chains.

Bot for Agar.io — February – May 2016
- Developed an artificially intelligent bot for the multiplayer real time strategy game *agar.io*, using **Java** and Game AI techniques, such as movement behaviors, decision trees, and path finding algorithms.

Real-time Twitter Sentiment Analysis — February 2016
- Processed live *Twitter* data stream using **Apache Spark** streaming service, with **Kakfa** as a broker to handle the data.
- Performed data analysis using **Python** and a word sentiment lexicon.

Ad-hoc Elastic Execution Framework for Android Applications — August 2014 – April 2015
- Designed a unique execution procedure for android applications by forming ad-hoc clusters of **Android** devices using **Wi-Fi Direct** and dividing computations by sharing resources among the transient cloud.
- A prototype application successfully calculated the value of Pi to 25 decimal places in under a minute.