Priyank **Agrawal**

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EDUCATION

MS in Information Systems Engineering   **Northeastern University, Boston, MA**   **Expected Dec 2017**
Coursework: Program Structures and Algorithm, Advanced Hadoop MapReduce Programming (ADBMS), Advances in Data Science, Data Warehousing and Business Intelligence, Data Management and Database Design, Web Development Tools and Methods, Web Design and User Experience, Application Engineering and Development **(GPA: 3.49/4.0)** (Secondary: *Data Mining Engineering*)
External: Machine Learning Specialization   **University of Washington**   **Mar 2017 - Present**

BE in Computer Engineering   **Gujarat Technological University, Vasad, India**   **July 2009 - June 2013**
Coursework: Design and Analysis of Algorithms, Software Engineering, Web Application Development, System Programming, Compiler Design, Advance Java Technology, Distributed Systems, Parallel Processing, Operating Systems

EMPLOYMENT

Software Engineering Intern   **The MathWorks, Natick, MA**   **Jan 2017 - Present**
- Designing and developing a RESTful application that aims to automate various processes for MathWorks' account profiles.
- Engineering a robust data reporting solution that involves gathering data, aggregating it and visualizing the aggregations in Matlab.
- Developed an API for the authentication team with RESTful web-service at backend and an AngularJS frontend.
- Working in-depth in Software Development Lifecycle and Agile Scrum methodology with strict coding standards and code reviews.
- Built a series of dynamic dashboards and reports for tracking performance and usage metrics using the server log data in Splunk to do real-time analysis. Also, performing aggregations by querying the production data for business insights.

Teaching Assistant   **Northeastern University, Boston, MA**   **May 2017 - Present**
- Assisting students in assignments, conducting labs and grading quizzes for Data Warehousing and Business Intelligence course.

Software Engineer   **Bharat Naukri, Vadodara, India**   **June 2014 - May 2015**
- Involved in building a J2EE application that is being used by engineers at the firm. Also, performed various data analysis tasks.

Software Engineering Intern - Android   **Bharat Naukri, Vadodara, India**   **June 2012 - May 2013**
- Developed an Android application that enables users to book tables and rooms in restaurants and hotels.

ACADEMIC PROJECTS

Machine Learning Python Models (2017) - Implemented linear, multiple, ridge and lasso regression with gradient descent optimization and k-folds cross validation for prediction of house prices. Implemented KNN for document retrieval by calculating similarity using TF-IDF and distance between two documents using cosine. Implemented transfer learning to extract deep learning features of image-net model and trained the KNN model to perform image retrieval. Built a personalized item similarity song recommender system and implemented logistic classifier to analyze product sentiments.

Restaurant Recommender System (2016) - Implemented MapReduce in Java on Yelp dataset in AWS EC2 instances to build a content based and personalized restaurant recommendation engine and visualized the outcome of the analysis in PowerBI.

Sentiment Analysis with Web Scraper (2016) - Built a web-scraper in R to fetch real time reviews from TripAdvisor and Amazon, and performed tokenization, stemming, lexicon comparison to calculate sentiment score of each review.

Loan Applicant and Life Insurance R Models (2016) - Implemented Naïve Bayesian and Neural Net to classify loan applicants. Also, support vector machines and decision tree regression to predict response for life insurance applicants.

Data Integration and Visualization (2016) - Designed a hybrid dimensional model for Microsoft Contoso DB. Implemented facts, slowly changing dimensions, and performed ETL, data transformation, error handling, source to target mapping. Created Dashboards, charts, slicers, dicers to perform trend, contribution, geographic and correlation analysis in visualization tools using data-warehouse.

Patient HealthCare Provider DB (2016) - Designed a logical data model with 28 entities for healthcare providers storing all patient information and built a J2EE application to show the dynamic crud operations after implementing the data model in a RDBMS.

Other Coursework Projects (2015 - 2016) - An Internet of Things Air Index Calculator using Java Swing, a Job Portal using Spring, Hibernate with crud operations and MySQL data persistence, and Data Integration/Visualization of AdventureWorks DB.

TECHNICAL SKILLS

Languages - Java, JavaScript, Python, R, C/C++, SQL, HTML/CSS, Matlab
Technologies - Hadoop, MapReduce, Spark, HBase, Pig, Hive, Cassandra, MongoDB, J2EE, Spring, Hibernate, Maven, AngularJS, ReactJS, Node.js, Bootstrap
Tools/DBMS - Talend, SSIS, PowerBI, Tableau, Qlik Sense, Excel, SQL Server, MySQL, PostgreSQL
ML Packages - CRAN, Graphlab Create, Numpy, Pandas, Matplotlib, Scikit-learn