Shivangi Singh

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EDUCATION

University of Massachusetts Amherst **Amherst, MA**
Bachelor of Science in Computer Science **Expected Graduation:** Jan 2019 **GPA: 3.78**

RELEVANT COURSEWORK

Object-Oriented Programming, Software Development, Artificial Intelligence, Applied Machine Learning, Natural Language Processing, Database Management, Programming Methodology, Algorithms.

SKILLS

Proficient: Java, Python, C, C++, Scala, HTML, CSS, JavaScript, Node.js, React.
Databases: SQL, PostgreSQL, MongoDB, Spark, MapReduce.
Software/Tools: Eclipse, Git, Android Studio, Unix, Tableau.

PROJECTS:

DeviceHealth **Hewlett Packard Enterprise (HPE)** **Jan 2018-May 2018**
Technologies: HTML, CSS, JavaScript, Node.js, Express.js, MongoDB

- Collaborated with a team of six to develop a web application that lets HPE users manage/custom the alerts on their devices.
- Followed the Waterfall Lifecycle model to lay out process plan.
- Outlined the Use Cases, layered out the UML Diagrams for the Low-Level Design Document.
- Set Up the database in MongoDB and connected it to the backend using Node.js along with Express.
- Set up the POST/PUT/GET requests for the application which made real time calls to the database. (RESTful)
- Set up the Login/User Authentication using express-session.
- Created the Login-Page for the application using HTML, CSS, JavaScript, Bootstrap.

MyAndroid **Sep 2017- Dec 2017**
Technologies: Java, Python, Android Studio, Machine Learning Library: sci-kit learn

- Led a team of three to develop an android mobile application.
- Successfully connected the application to record the accelerometer reading from the phone in Java.
- Performed pre-processing data cleaning for the recorded data to remove orientation dependencies, ran tests, made visualizations to find the threshold for activity classification using zero-crossings.
- Implemented the activity classification using Supervised Learning by implementing various features for the data, like mean axis value, number of crossings taking in account the window size.
- Achieved an accuracy of 92% by using different classification modules.
- Implemented the K-Means algorithm for Location Clustering, used the Google API to integrate map into the application.

Sentiment-Analysis-On-YelpReviews **Sep 2017- Dec 2017**
Technologies: Python, SQL, NLP libraries like NLTK, TextBlob

- Implemented Naive Bayes and customized Turney's algorithms to perform sentiment analysis on the 3-star ratings of Yelp Reviews and compared the result to the predictions to the results of TextBlob.
- Achieved 62% accuracy through Turney's as compared to 52% by TextBlob.
- Predicted business aspects using NLTK, POS-Tagging.
- Composed an academic paper, presented final findings in a poster session.

N-Queens Solver.
Technologies: Python, Django, Artificial Intelligence

- Implemented a N Queens Solver using Hill-Climbing, Simulated Annealing, A* Search using number of attacking pairs, null as heuristics.
- Improved run-time by using the Set data structure compared to a linked list.

PROFESSIONAL EXPERIENCE:

Recruitment and Outreach Leader **University of Massachusetts Amherst, MA** **Sep 2016- present**

- Delegated the College of Computer Science at various University held events.
- Volunteered to speak at high-schools.
- Represented the college in semester meetings with the Academic Dean to help improve retention.

Student Trainer Circulation **University of Massachusetts Amherst, MA** **Jab 2015- present**

- Trained hires-in the working of the library, maintained the library database.

Teaching Assistant **University of Massachusetts Amherst, MA** **Sep 2016- May 2018**

- Acted as a liaison between the Teaching Assistants in the department and the Course Chair.
- Responsible for orchestrating review lessons and weekly office hours.