Surinder Sokhal

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Available: Dec. 2016

Education

Northeastern University, Boston, MA Dec. 2016
Masters in College of Computer and Information Science **GPA: 3.73/4.0**
Relevant Coursework: Data Mining, Parallel Data Processing in MapReduce, Algorithms, Fundamentals of AI

Guru Nanak Dev University, Amritsar, India May 2013
Bachelor of Technology in Computer Science and Engineering

Technical Skills

Languages:	Java, Android, R (basics), Python	Big Data:	Hadoop, Apache Pig(basics)
Database:	Oracle 10g, MySQL	Web:	HTML5, CSS (basics), JavaScript (basics)
Tools:	Android Studio, Elastic Search, Eclipse, IntelliJ	ETL Tools:	Informatica, Business Objects
Cloud Service:	EMR, EC2, VPC	Source Control:	SVN, Git
Networking:	Socket Programming, TCP/IP	Build Tools:	Gradle, Maven

Work Experience

Masters Teaching Assistant, Northeastern University, Boston, MA Jan. 2016 – Apr. 2016
Course: CS6240 Parallel Data Processing in MapReduce (Prof. Jan Vitek)
- Managed quizzes, conducted code walks & graded a class of 32 students
- Impact: Helped students understand the MapReduce paradigm

Nok Nok Labs, Palo Alto, California - Software Engineer Intern (Matthew Lourie)
Project: Deployment of Auth Services (Python, AWS) May 2016- Present
- Enhanced python scripts to remotely deploy AWS components (VPC, subnets, EC2) in parallel
- Impact: Reduced deployment time by 50%

Project: Automated Test-Harness for improved Agility (Android) May 2015 – Dec. 2015
- Enhanced a custom test harness Android app for Nok Nok Labs which included automated test execution, parameterization of test cases and further validation
- Impact: Increased efficiency by 70% and 40% fewer bugs

Innovation Labs, TCS, India - Assistant System Engineer-Trainee Sept. 2013 – July 2014
Project: Report Generating Tool (Java, Weka libraries)
- Developed automated scripts using Java Standard libraries and Weka to compute Confusion Matrix, Confidence and Support of associative rules for given datasets and plot test results
- Impact: Increased utilization of available resources by 40% and reduced manual effort

Academic Projects

Stock Price Prediction using Twitter sentiments (Java & Python)
- Crawled tweets using twitter-streaming API and performed sentiment Analysis with an accuracy of 84%
- Result: Predicted rise/fall in stock price with an accuracy of 73% using yahoo finance data

Page Rank & Inverted Indexing (Java, HMTL5 and CSS)
- Implemented multi-threaded web crawler for topic based query to collect and build an Inverted Index
- Ranked crawled hyper-links based on the requested queries and displayed top ranked pages

Six degree of Separation (Hadoop, AWS)
- Created pipeline of MapReduce jobs on AWS to prove 'Six degree of Separation' using twitter dataset of 2M records
- Result: Average degree of 4.68 (randomly generated source and destination vertex)

Pac-Man Game (Python)
- Implemented graph search algorithms like A*, BFS (Breadth First Search), Min-Max Algorithm and Alpha-Beta Pruning to help Pac-Man find path in the maze

Chat Service (Java, Socket Programming)
- Developed Java-Swings based chat application using Sockets for networking
- Features included group-chat/ Private-chat, emoticons and file transfer

Kadoop (Java, AWS, Hadoop)
- Build Hadoop like framework with 1 Master and N-slave architecture using Sockets for networking
- Features included fault tolerance, managing splits, zero copy

Teen Violence (Android)
- Developed an android application to help Prof. Changiz Mohiyeddini for his research study to help test subjects to avoid violence
- Simulated accept/reject approach using images

GPS Tracking (Android)
- Developed an android application to track the mobile phone's coarse/fine location
- Used Google Maps APIs to plot phone's location