OMKAR LOKHANDE

520 369 9369 | lokhand2@illinois.edu | https://github.com/lokhandeomkar

Education

University of Illinois at Urbana Champaign   **GPA:** 3.67/4.0
Master of Computer Science, Aug 2016
Advanced Data Management, Computer Vision, Distributed Systems, Data Structures, Computer Architecture

University of Illinois at Urbana Champaign   **GPA:** 4.0/4.0
MS in Mechanical Engineering, May 2015 (Certificate in Computational Science)

Indian Institute of Technology Bombay   **GPA:** 9.06/10
B. Tech in Mechanical Engineering, May 2011 (With Honors and a Minor in Management)

Skills

Programming: C/C++, Python, Java, JavaScript, MySQL, PostgreSQL, NO SQL, MIPS **IDE:** Eclipse, IntelliJ IDEA, Spyder **OS:** Windows, Mac OS X, Linux **Misc:** Spark, Storm, Hadoop, MapReduce, scikit-learn, Maven, Tomcat

Key Projects

Distributed Systems Development (Java)   Aug 2015-Nov 2015
- grep: Implemented a group membership protocol for failure detection using gossip style message passing, implemented logging in Log4j and unit testing in JUnit
- Simple Distributed File System: Implemented the ring leader election protocol and built a simple distributed file system for reliable data storage guaranteeing 3 replicas

Windowed Query Execution on a relational database (Java)   Feb 2016-May 2016
- Enabled windowed (partial) query execution functionality for SQL queries and achieved order of magnitude improvement in speed for single table queries and two table joins, performed query parsing using ANTLR
- Integrated within DataSpread, an application with RDBMS backend and spreadsheets as the UI

User Review (yelp dataset) based Restaurant Search Engine   Feb 2016-May 2016
- Designed and built a web server with Express.js that serves the web page and communicates with Elasticsearch
- Incorporated Google Map API to display and pin the returned restaurants on the result page
- Implemented aspect rating (ambiance, service, food quality etc…) for reviews using NLP technique Latent Aspect Rating Analysis to enhance the utility and to be used as additional search parameters

Kaggle: Model quoted prices for Industrial tube assemblies (Python)   Aug 2015-Nov 2015
- Performed data pre-processing, feature generation, selection using scikit-learn, came up with 140+ features, implemented SVM, Adaboost, XGBoost, Random forest regressor and their ensembles
- Ranked 30th among a total of 1323 teams on Kaggle public forum based on prediction accuracy

Kaggle: Human or Robot (Python)   Oct 2015-Nov 2015
- Performed data pre-processing with scikit-learn toolkit and cross-validation using Python
- Implemented random forest, bagging with decision trees (up-sampling and down-sampling as training data was skewed) and ada-boost, achieved 93.5% prediction accuracy, ranked 25th on the public forum

Professional Experience

Management Trainee, Godfrey Phillips India Ltd.   2011-2012
- Quality Assurance: Performed **Pareto Analysis, DOE** and carried out trials with the help of technicians to assess the problem and other suggested solutions to maintain the OV of the product
- Led an interdisciplinary team of 5 in an organization wide six sigma green belt project on brand rationalization

Internships

CFD and Numerical Heat Transfer, UPC, Spain   May 2009-July 2009

- Developed C++ algorithms to implement FVM for benchmark CFD problems and demonstrated excellent agreement with published results, ranked first among 9 interns, awarded fellowship for graduate studies

Awards

- 1 of 5 incoming graduate students awarded the Roy J. Carver fellowship at UIUC   2012
- Awarded certificate of merit for being in **top 0.1%** in Indian National Chemistry Olympiad   2007
- Awarded certificate of merit for being in **top 0.1%** in Indian National Physics Olympiad   2007

Leadership and Extra Curricular

- Teaching Assistant: Guided lab sessions and projects, graded lab reports and held office hours   2013-2015
- System Administrator: Hostel 6, IIT Bombay, led a team of 3, introduced online elections   2009-2010
- **Captain**: Hostel 6 Soccer Team, IIT Bombay, **Gold** medal in inter-hostel championship   2010-2011