## RAKESH GOPAL KAVODKAR

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## **EDUCATION**

North Carolina State University

Master of Science in Computer Science

GPA: 3.56 Expected Graduation: May 2016 Course Work: Automated Learning and Data Analysis, Artificial Intelligence, Graph Data Mining, Advanced Algorithms, Design and Analysis Of Algorithms, Internet Protocols, Advanced Data Structues, Advanced Machine Learning, Foundations of Data Science

R. V. College of Engineering

Bangalore, India
Bachelor of Engineering in Computer Science

GPA: 8.99/10

Graduated: May 2011

## **WORK EXPERIENCE**

#### SAMSUNG R&D INSTITUTE

Senior Software Engineer June 2013 - May 2014 Languages/technologies used: Java, Tomcat, NodeJS Parent Control System

- Worked on the development of a child safety feature on mobile browsers; blocks potentially unsafe sites
- Implemented the category classifier using Naive-Bayes classification for text; developed in Java

### News Recommendation System

• Implemented REST services to connect the recommendation module, database and the UI

#### Webpage Classification

- Implemented a corpus aggregator for the webpage classifier; corpus is used to train the classifier
- Designed and implemented a test framework to cross verify the data classified by the classifier module

#### **CISCO SYSTEMS**

Software Engineer August 2011 - June 2013 Languages/technologies used: Java, Tomcat, JavaScript Prime Infrastructure (PI)

- Worked on *Config Templates*, a set of features that deploys configuration(s) over the network devices
- Developed *Undeploy Template*, a feature that removes a configuration from the devices(s)
- Designed and implemented *Global Objects*, an intermediate entity consumed by the *Config Templates*
- Worked with several customers on feature enhancements and product issues

#### **ICIDIGITAL**

Software Development Intern June 2015 - Present Languages/technologies used: Java, JSP, AEM, LaTeX Prime Infrastructure (PI)

- Worked on developing interactive training exercises on Adobe Experience Manager (for ICIDigital use)
- Wrote a multiversional LaTeX document for the training manual for version 5.6 and 6.1

### **TECHNICAL SKILLS**

• Languages: Java, C/C++

• Scripts: Python, JavaScript, R, NodeJS

• Environments: IntelliJ Suite, Eclipse, Visual Studio

• Operating Systems: Windows, Linux, Mac OS

# **ACADEMIC PROJECTS**

- Tweet Analyzer: Built as a socked oriented client-server architecture in NodeJS (using Express, Socket.IO); Tweets tracked and streamed based on keywords; Analyze the general sentiment behind the tweet; [Spring 2015]
- Centralized Index File Sharing: A system for sharing RFCs among peers; RFC and peer info at the central node (server); File transfer as a peer2peer exchange; developed using Python sockets; [Spring 2015]
- FTP using Go-Back-N ARQ scheme: File data encapsulated over UDP packet; Go-Back-N scheme used for packet transfer; False packet loss introduced based on random probability; developed using Python sockets; [Spring 2015]
- Top-K twitter words: Apache Storm (trident) used for real time stream analytics; Apache Lucene used for text preprocessing; Count-Min sketches used as data-structure for keeping the word count; developed in Java; [Spring 2015]
- Loan Default Prediction and Loss Estimation: A system
  which predicts whether granting a loan to a customer will
  result in defaulting, given the customer's transaction details; project idea from Kaggle, developed in R; [Fall 2014]
- Speaker-Listener Label Propagation (SLPA) Algorithm: Implementation of the algorithm from the paper Towards Linear Time Overlapping Community Detection in Social Networks by Jierui Xie and Boleslaw Szymanski, that detects overlapping communities in a graph; developed in Java; [Fall 2014]
- Event Detection in Time Series of Mobile Communication Graphs (paper implementation): Detects the change points or anomalies in a time varying graph; anomalies refers to surges in traffic; developed in R using sna and igraph; [Fall 2014]
- Virus Propagation Simulation: Estimate the Effective Virus Strength based on infection and healing probabilities; identify the nodes whose removal causes the max Eigen Drop for immunization; developed in Python; [Fall 2014]
- Natural Language Processing using Stanford NER: Perform NLP on Jane Austen's Emma; identify the features belonging to person, location, organization and other categories; developed in Java; [Fall 2014]
- Tutorial on Trees (data-structure): Implementation of a web-based tutorial on different types of binary trees; Developed using Java, Adobe Flash, HTML 4.0, CSS and JavaScript; [Undergraduate: Jan - Jun 2011]
- Connect-N Game: Extension of the classic board game '4in-a-row'; Flexibility to increase the board size and the number of coins in a row; Developed using Java; [Undergraduate: Aug - Dec 2010]