

## SKILLS SUMMARY

- Highly passionate about big data and data science. Work experience in data science, web crawling/scraping, natural language processing, machine learning. 4 years of professional experience in web application development and automation
- Sun Certified Java Professional, SCJP Certification Score 91%, Sun Microsystems/Oracle
- Proficient in Java/JEE. Work experience in Python, Eclipse RCP. Familiar with C, Hadoop, Matlab, AWS Cloud, Shell Script, HTML, CSS, Javascript, AJAX, Bootstrap, SQL. Basic knowledge of Polymer (Material Design), Node.js, AngularJS and MongoDB.
- Familiar with API, agile development, testing, responsive UI, version control. Comfortable on Windows/Mac/Linux/Unix

## EDUCATION

**Master of Science in Computer Science**, University of Southern California (USC), Graduating in May 2015, GPA 3.77  
**Related Course Work:** Machine Learning, Social Media Analytics, Artificial Intelligence, Database Systems, Natural Language Processing, Information Integration on the Web, Analysis of Algorithms

**Bachelor of Technology in Computer Science and Engineering**, Cochin University of Science and Technology, India, 2008. 75.3%, Converted GPA 4, First Class with Distinction

## AWARDS

'Service and Commitment' Award for dedicated service, TCS Bangalore, India, Dec 2011

'On The Spot' Award for outstanding contribution to the project, TCS Cochin, India, May 2011

'Best Performer' Award for achieving the highest training score among 200 candidates, TCS Bhubaneswar, Oct 2008

## PROJECT EXPERIENCE

### Avazu Ad Click Prediction using Logistic Regression – Machine Learning (Vowpal Wabbit, Python)

- Used logistic regression to predict the clicks on the ads by analyzing the features and performing supervised learning.
- Improved the test accuracy by optimizing feature selection, bit length of hash function and multi-pass learning.

### Social Network - Database Systems (Hadoop, Java, Oracle, AWS Cloud)

- Designed a conceptual schema using Extended ER Data Model, normalized in 3NF and mapped into relational database.
- Utilized parallel computation to efficiently execute queries at a large scale using Hadoop, EMR, EC2 and S3 Amazon services.
- Studied the linear scalability and the scale out effect of query execution performance by increasing the number of EC2 cores.

### A Comparison of the Emotional Patterns on Twitter and in the Real World – Social Media Analytics (Java)

- Collected millions of tweets from Los Angeles area using Twitter API and performed data extraction and refinement.
- Performed topic analysis and emotional content analysis of geo-tagged tweets to study the emotional patterns.

### Higher Education Leverage Program – Data Mining / Information Integration on the Web (Java, MySQL)

- Developed a recommendation system for students to shortlist universities for higher education. The system analyzes the data extracted from various sources and provides a list of universities that maximizes their chances of getting admits.
- Developed web crawlers and integrated data from multiple sources into the central repository for data mining and analysis.
- Helped students visualize the data by creating a user-friendly UI to display meaningful information and aggregate analysis.

### Selena Speak – Companion Dialogue System – Applied Natural Language Processing (Java)

- Developed a dialogue system, which parses the question given by the user and responds intelligently.

## PROFESSIONAL EXPERIENCE

### Lead Developer, Computational Social Science Laboratory, USC, Los Angeles, California

Jun 2014 to Present

- Designed and developed an open-source plugin-based application for natural language processing with a simple GUI for non-technical psychologists to perform preprocessing, content analysis, stemming, classification, topic analysis and web crawling.
- Designed the software architecture and managed a team of five developers to expand on the prototype using agile techniques.
- Developed a custom Trie or prefix tree to implement LIWC-style text analysis.

### Web Application Developer, Information Sciences Institute, Marina del Ray, California

Mar 2014 to Jun 2014

- Developed a user-friendly responsive web app for National Institute of Mental Health to manage genetic research information.
- Developed the back-end application and database queries for study data management. Fine-tuned and modeled the database.

### Lead Developer/Automation Engineer, American Express, TCS, Cochin, India

Aug 2008 to Mar 2012

- Reduced server migration time by 95% by automating the modification, building and deployment of the applications.
- Developed automation tools and scripts for data integration, server house-keeping and application monitoring.