## SILAMBARASAN MADANAKUMAR

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**EDUCATION** 

Illinois Institute of Technology Chicago, USA

Masters in Computer Science with Data Analytics Specialization (GPA: 4/4) December 2016 (Expected)

**Amrita School of Engineering** 

Bachelor of Technology in Electronics and Communication Engineering (GPA: 7.3/10) May 2009

**TECHNICAL SKILLS** 

Python, Java, C++, PL/SQL, LaTeX and C. Programming Languages:

Eclipse, MATLAB, Eagle PACE, Eagle STAR, Control-M and, Autosys. Applications:

**Version Control:** Git and SVN. Database: Oracle 9i and 11g.

Platform: Windows, Linux, UNIX and Amazon Web Services EC2.

Web Development: HTML, CSS and JavaScript. Languages: English, Tamil and Spanish.

**Relevant Academic Courses:** Machine Learning, Natural Language Processing, Data Mining

## WORK EXPERIENCE

**Graduate Teaching Assistant** - Illinois Institute of Technology, Chicago

September 2016 - Present

• Teaching Assistant for Dr. Yonshik Choi's Computer Networks - Fundamentals I course in Fall 2016 semester.

Chair Webmasters - TEDxIIT, Chicago

January 2016 - Present

Coimbatore, India

• Led Webmasters team (www.TEDxIIT.com) and coordinated with diverse team and ensured quick turnaround on tight deadlines.

Research Assistant- Illinois Institute of Technology, Chicago

January 2016 - Present

• Developing Python scripts for parsing C headers file to auto-generate C code for model simulation used in Smart Grid Systems for Dr. Alexander Flueck.

Software Engineer - Hexaware Technologies, Chennai, India

May 2012 - July 2015

- Developed and enhanced Bash scripts, Oracle database objects and Autosys jobs.
- Trained and mentored team of 6 in system related technologies and processes as the Technical Lead.
- Experienced in day-to-day data analysis of gigabytes of transactions data to ensure the data quality and handle exceptions.

Systems Engineer - Tata Consultancy Services, Bangalore, India

February 2010- May 2012

- Improved the data loading performance by 30% by replacing existing data feed design with new efficient design, preventing risk of SLA breaches.
- Automated monthly data feeds saving 8 workhours/month spent on the manual process to load the analytics data.

## **ACADEMIC PROJECTS**

- Mining Brand Perceptions from Twitter Social Networks (under mentorship of Dr. Aron Culotta).
- Implementation of Animoto Clone— Client and Remote Workers on AWS EC2 Instance using DynamoDB and S3.
- Performance Evaluation of Terasort using Native Java, Apache Hadoop and Spark on AWS EC2 c3.large instance.
- Predicting Future Movie Ratings based on Social Media Buzz by performing Sentiment Analysis.
- Automatic Text Summarization using Lexical Chains for Natural Language Understanding.
- Link-State Routing algorithm implemented using Dijkstra's algorithm in JavaFX.
- Determining Driver Fatigue Using Real-Time Non-Intrusive Monitoring implemented using SVM classifier.

## **PUBLICATIONS**

• Improved Eye Location Algorithm for Driver Fatigue Monitoring.

April 2009

National Conference on Recent trends on Communications & Signal Processing

 Determining Driver Fatigue using Real-time Non-intrusive Monitoring (Best Paper in Signal Processing) February 2009 International Conference on Optoelectronics, Information and Communication Technologies