# Sumukha Tumkur Vani

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### **EDUCATION**

2010 - 2014 Bachelor of Engineering

Major: Computer Science and Engineering

Bangalore University, India

Graduated with 83.8% [GPA: 3.67/4.0]

2008 - 2010 Pre-University Course

MES Pre-University College, Bangalore, India

2<sup>nd</sup>PUC 93%

2005 - 2008 High School

VVS Sardar Patel High School, Bangalore, India

SSLC 95.36%

### Professional Experience

2014 - Present Software Developer, Oracle India Pvt Ltd, Bangalore, India

**Oracle Virtual Networking** 

• Involved in developing of Infiniband Switches

• Involved in building device drivers and system softwares for Solaris OS

• Experience of coding in the SPARC environment

2013 - 2014 **Software Developer Intern**, Streamoid Technologies, Bangalore, India

Worked on Natural Language Processing tools

• Designed and developed a search engine using Apache Solr

• Implemented and analysed product recommendation systems

Built a performance and load testing system using Apache JMeter

2012 - 2013 **Software Developer Intern**, *Teritree Technologies*, Bangalore, India

Developed a database web application on the Amazon EC2

• Developed an email application using the Amazon SES

• Built an extension for the Google Chrome web browser

## TECHNICAL SKILLS

*Programming* C, C++, Java, Python

Web HTML, PHP, Javascript

Database MySQL, MongoDB

Operating Systems Solaris, Linux, Windows

## **Awards and Honors**

- Nov 2014 Excellent Paper Award and Gold Medal for the research paper titled "DSWSD: Double Sliding Window for Secure Data Transmission in WSNs", at the International Conference of Science, Technology, Engineering and Management, Singapore.
- June 2014 **Best Under Graduate project** for ``Adaptive Load Balancing Protocol for Service Oriented Wireless Sensor Networks"
- Dec 2013 Winner of SAP Lumira University Challenge 2013.
- Jan 2013 Held the **Collaboration Platform Lead** position in the Student Activities Committee for the year 2013-2014 in the IEEE Bangalore Section.

### **Publications**

- Feb 2015 Lata B T, **Sumukha T V**, Suhas H, Tejaswi V, Shaila K, Venugopal K R, L M Patnaik ``SALB: Secure Adaptive Load Balancing in Service Oriented Wireless Sensor Networks", IEEE Signal Processing, Informatics, Communication and Energy Systems Conference Proceedings
- Nov 2014 Lata B T, **Sumukha T V**, Suhas H, Raghavendra M, Shaila K, Venugopal K R, L M Patnaik, "DSWSD: Double Sliding Window for Secure Data Transmission in WSNs", International Journal of Computer Networking, Wireless and Mobile Communications (IJCNWMC)
- Nov 2014 Lata B T, Raghavendra M, Sumukha T V, Suhas H, Tejaswi V, Shaila K, Venugopal K R, L M Patnaik, " DRFSD: Directed Restricted Flooding for Secure Data-aggregation in Wireless Sensor Networks", International Journal of Computer Networking, Wireless and Mobile Communications (IJCN-WMC)

## **PROJECTS**

#### Computer Networks

## Adaptive Load Balancing Protocol for Service Oriented Wireless

- Sensor Networks
  - An efficient load balancing protocol for routing data in a WSN.
  - Introduced a technique to deduce and evaluate a set of link disjoint paths from all available paths.
  - Congestion detection and control by adaptive load ditribution over multipath.

### Computer

#### SSexecutor, A multi-platform project testing tool

. Networks

- A remote machine program execution system meant to facilitate code testing on multiple machines.
- Copies a project from local machine to a remote machine and executes it.
- Brings back the console output from the remote machine to the local machine.

## System

#### SSASM, A Complete SIC Machine Assembler

Software

- Implementations of a Simple Instruction Set machine compatible assembler.
- Includes technique to detect errors in the source code.
- Produces an object file which is ready for loading.