

# 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 (IJCNWMC)

## 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 distribution over multipath.
- Computer Networks*    **SSexecutor, A multi-platform project testing tool**
- 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 Software*    **SSASM, A Complete SIC Machine Assembler**
- 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.