

Sumukha Tumkur Vani

22 Preston Street, Providence RI USA 02906 | sumukha.tumkur_vani@brown.edu | +1(401)660-8457
<https://www.linkedin.com/in/sumukhatv>

Education

- 2016 - 2018 **Master of Science, Computer Science**
Brown University, USA
- 2010 - 2014 **Bachelor of Engineering, Computer Science and Engineering**
University Visvesvaraya College of Engineering, India

Professional Experience

- Jul - Aug 2014 **Software Developer, Oracle India Pvt Ltd**, Bangalore, India
Oracle Virtual Networking
- Involved in the development of device drivers for Infiniband channel adapters
 - Developed a Performance Analyser to profile the IO performance of IB HCAs
 - Developed a Command Line Interface tool for Solaris to interact with IB HCAs
- Oct - Apr 2013 **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

Technical Skills

- Programming C, Python, Rust, Java, C++, Javascript
- Database MySQL, MongoDB
- OS Solaris, Linux, Windows

Awards and Honors

- Jan 2016 **Best Hack** - The Under25 Summit Hackathon.
- Feb 2015 Winner of **Cisco Hackathon** 2015.
- 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.

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 (IJC-NWMC). Secured **Gold Medal** and **Excellent Paper Award**
- 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 (IJC-NWMC)

Projects

- Computer Networks **Internet Protocol over UDP**
- A virtual IP Network with UDP as the link layer
 - Uses Routing Information Protocol for routing decisions
 - Developed using Rust programming language
- 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.