

VENKATA KRISHNAN

+1(716) 816 – 8873 | venkatakrishnansvpr@gmail.com | [linkedin.com/in/krishnv](https://www.linkedin.com/in/krishnv) | venkatsvpr.github.io

EDUCATION

M.S. in Computer Science | SUNY Buffalo | Buffalo, NY, USA | Graduating - Dec 2018 Aug 17 – Dec 18
B.E. in Electronics & Communication Engg. | Mepco Schlenk Engg. College | Sivakasi, India 2009 - 2013

WORK EXPERIENCE: 4 YEARS

Big Switch Networks | Software Engineering Intern | Santa Clara, CA May 2018 – August 2018
Working on developing span port feature on the Big Cloud Fabric Controller

Brocade Communications | Software Engineer | Bangalore, India April 2016 – July 2017
Virtual-LAG:

- Implemented Virtual-LAG on Brocade's Fast-Iron Family Routers

Layer-2 Networking Protocol Support:

- Implemented Virtual-LAN Configuration enhancements on Brocade's Fast-Iron Family Routers
- Worked on Layer-2 Networking protocols (VLAN, xSTP, dot1-BR)

Aricent Inc. | Software Engineer | Chennai, India Sep 2013 – April 2016

Multi-Chassis Link Aggregation:

- Designed and developed Multi-Chassis Link Aggregation framework
- Improved the legacy base code in Layer2, Layer 3 Networking protocols (LAG, VRRP, VLAN)

Router-port Implementation on Broadcom:

- Designed and Implemented the Router-port feature over the Broadcom Chipset and awarded "Individual Excellence Award" Netconf, CLI & Open Source:

- Successfully refactored portions of the CLI (Command Line Interface) code for robustness and scalability
- Designed and Integrated open source Netconf Protocol code with Aricent's Switching Software

HTML Generation Tool:

- Developed and maintained the Routing Software's Web-Interface Generation tool and increased speed by 100x

SKILLS

Programming: C, Python, Java, R, HTML, PHP, Javascript, CSS, Shell, C++, XML, MySQL

Technologies: Layer 2/Layer 3 Networking Protocols, SDN, Blockchain, Hadoop, Linux, Android, CVS, Git, Apache

Tools: GDB, Valgrind, Coverity, Wireshark, Android Studio, Bootstrap, Dreamweaver, WordPress, R Studio, Jupyter

ACADEMIC PROJECTS

- **Distributed Key-Value Storage (Amazon Dynamo) – Android, Java:** Implemented a failure resilient distributed key-value storage inspired by Amazon Dynamo that provides Linearizability and availability
- **Distributed Hash Table – Android, Java:** Implemented a distributed hash-table based on Chord that provides node joins, ID space partitioning and ring based routing
- **Group Messenger on Android – Android, Java:** Implement an Android Group Messenger that offers Total FIFO Ordering
- **Priority/MLFQ Scheduler – C:** Implemented a Priority scheduler using priority-donation to solve priority-inversion and Multilevel feedback queue scheduler to reduce average wait time for threads in Pint-OS
- **Syscall Infra & Virtual Memory– C:** Implemented system calls, user program support & virtual memory Infra for Pint-OS
- **Chat Application - C:** Implemented Client-Server Chat application with buffering and file sharing capabilities
- **Reliable Data Transfer Protocols - C:** Implemented Alternating Bit, Selective Repeat and GoBack-N Protocols
- **Software Defined Networking - C:** Implemented a Distance Vector routing protocol over simulated routers
- **Exploratory Data Analysis - R:** Analyzed Influenza Outbreak by performing Exploratory data analysis by extracting tweets by using Twitter REST APIs and comparing the data with Official Influenza Statistics
- **Data Analytics Pipeline using Apache Spark - Python:** Implemented data acquisition & analytics pipeline to fetch articles using NY-Times API. Used Hadoop MapReduce and Apache Spark to build article classification model
- **Handwritten Digit Classification - Python:** Implemented a Neural network based image classifier on mnist dataset
- **2048 Game Solver - Python:** Implemented an AI Based 2048 Game Solver using min-max algorithm and alpha-beta pruning

ADDITIONAL EXPERIENCE AND AWARDS

- **Blockchain Buildathon: April 2018: 1st Place** for Blockchain based distributed Supply Chain solution developed for Praxair
- **Individual Excellence Award:** Awarded for the project "Router-port implementation on Broadcom"
- **Best Technical Project Award:** Awarded for Implementing Session Initiation Protocol over TCP/UDP
- **Motorola Scholar Awards: 2011-12:** Won 3rd Prize out of 100+ projects for Automated Wheelchair Project
- As a freelancer, developed multiple web-based solutions for clients across the globe through Upwork