Shriroop Joshi

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Work Experience:

Software Engineer II – NFVIS – Cisco Systems, San Jose, CA — Jun 2018 - Today

- Integrated IPSec tunnel client into NFVIS to use EAP along with PKI to establish a tunnel
- Improved network performance by integrating Data Plane Development Kit (DPDK) into Cisco NFVIS
- Designed and developed backup – restore feature for NFVIS which includes hypervisor configurations and VM disks
- Introduced unit-test framework for Cisco NFVIS to improve coverage of source code

Software Engineer - Persistent Systems, Nagpur, India — Aug 2015 – Aug 2016

- Worked as a software developer on IBM BigInsights using agile methodologies in a team of 12 developers
- Developed python and bash scripts to automate installation and configuration of Apache ambari server on a cluster of nodes with IBM Open Platform (IOP) big data packages
- Worked with Apache Hadoop and Titan DB to integrate it with IBM General Parallel File System (GPFS) instead of Hadoop Distributed File System (HDFS).

Software Engineering Intern - Persistent Systems, Nagpur, India — Aug 2014 – May 2015

- Worked as software developer on FormPlusPlus to develop online forms to overcome missing features in Google forms
- Implemented Google sign-in and implemented Google Drive API for storing and sharing results of the forms
- Used Java servlets and JSP to write server code, and JavaScript and jQuery for creating front end

Education:

The University of Texas at Dallas, Richardson, TX
Master of Science in Computer Science (Systems track) — GPA: 3.5/4, Aug 2016 - May 2018

Shri Ramdeobaba College of Engineering and Management (RCOEM), Nagpur, India
Bachelor of Engineering in Computer Science — GPA: 8.24/10, May 2011 - Apr 2015

Skills:

- Programming/Scripting languages: Java, Python, C/C++
- Technologies: OpenvSwitch, Hadoop DFS, TitanDB, MongoDB, MySQL
- Frameworks: nodeJS, OpenMP, OpenACC, MPI
- Operating Systems and tools: Windows, Linux (CentOS, RHEL), Git, Jenkins

Academic Projects:

OVS-Interface — github.com/shriroopjoshi/ovs-interface

- Developing a socket-based library to interact with OpenvSwitch using JSON-RPCs in python. This provides an easy way to communicate with OpenvSwitch.

Distributed File System - The University of Texas at Dallas — Spring 2017

- Developed a simple distributed file system in Java using two phase commit protocol. It supports file replication and scalability. It uses underlying network to send messages for committing changes. Tested the solution using 12 nodes.

Parallel processing algorithms – The University of Texas at Dallas — Fall 2016

- Implemented and optimized performance of parallel algorithms for large matrix multiplication (10^6x10^6), solving differential equations and parallel quick-sort across nodes. Used C/C++, OpenMP, OpenACC and MPI, and tested it on 32 cores.

Video processing application on Litmus^{RT} – The University of Texas at Dallas — Fall 2016

- Developed a video decoding application in C using FFmpeg source. Executed it on various schedulers in Litmus^{RT} OS (a real-time OS) to evaluate its performance.

Groovy Tunes - The University of Texas at Dallas — Fall 2017

- Created an online music player. Developed server in Java to stream music files and created a client in JavaScript to decode the stream and play songs.
- Unit tested the code using JUnit tests. Also, used design patterns and principles of software engineering

Secure Messaging Application - The University of Texas at Dallas — Spring 2017

- Designed and developed a secure messaging application which implements public key encryption and shared key encryption for server-client and client-client communication. Also implemented peer to peer messaging service

Achievements and co-curricular activities

- Represented Cisco NFVIS in ConfD Developer Days 2018 held at San Jose
- Ranked second in '*Capture the Flag*' (hacking tournament) held at University of Texas at Dallas
- Participated in hackathon held as a part of Developer Week '18 held at San Francisco