

JAYACHANDRAN JESSE JOHN

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Principal Software Development Engineer with experience working in a collaborative team environment. Extremely hardworking and exhibit an ever-enduring enthusiasm and passion towards the work at hand. Consistently delivered above and beyond on any tasks undertaken. Possess strong expertise in usage of Python as a programming language for software development and automation. Experience working in the Cloud network infrastructure and virtualization technology such as SDN, Kubernetes, Docker Containers. Acquired hands on experience and skillset in data analytics, machine learning and big data technology

TECHNICAL SKILLS

- Cloud Virtualization technologies: Docker Containers, Kubernetes, OpenStack
- Data Analytics: APIs, JSON, Numpy, Pandas, Matplotlib, Beautiful Soup, Tweepy
- Databases: SQL, NoSQL, MySQL, MongoDB
- Web Visualization: HTML, CSS, Javascript, AJAX, D3, Leaflet, Tableau
- Machine Learning: Sklearn, Tensorflow, Keras/Neural Networks.
- Big Data: Hadoop, Spark
- Scripting/Programming Language: Python, TCL, R
- Operating Systems: RHEL KVM, VMware ESX, Linux, Cisco IOS, Nexus OS (NX OS), Windows
- Certification: Python, Linux in a Red hat Environment I & II, Mirantis Certified Administrator for OpenStack Professional Level (MCA200) – License 200-160633
- Software Tools: Eclipse IDE platform, SVN, Perforce
- N/W Protocols: L2 Protocols(RSTP, MSTP), L3 Protocols (OSPF, EIGRP, BGP), OpenFlow

DATA SCIENCE PROJECTS:

Big Data Analytics using Machine Learning in Cybersecurity: July 2018

https://github.com/jjj3035/cybersecurity_machine_learning

Project Summary: The goal of this project is to apply the concept of Big data such as Spark and Machine Learning classifiers models such as Decision Tree, Random Forest, K Nearest Neighbor and Deep Learning/Neural Network in detection/prediction of cyberattack.

Belly Button Biodiversity: June 2018

<https://belly-button-biodiverse.herokuapp.com/>

Project Summary: The goal of this project was to deploy an app on Heroku. The app was designed using Flask API. Operation on data set was performed using Pandas. sqlite database file and SQLAlchemy was used to store and retrieve data. Plotly.js was used to build Interactive pie and bubble charts.

Mission to Mars: June 2018

https://github.com/jjj3035/web_scraping

Project Summary: The goal of this project was to build a web application that scrapes various websites for data related to the Mission to Mars and displays the information in a single HTML page. Tools used for this project included BeautifulSoup, Pandas, Mongo DB, Flask and Requests/Splinter.

EXPERIENCE

ORACLE, Redwood City, CA

Principal Member of Technical Staff

01/2017-Present

- Principal Software Development Engineer in Oracle's Private Cloud Appliance Team.
- Responsible for Network Architecture Design and Implementation for Oracle PCA Engineered System.
- Working on various networking data center switches such as Arista, Juniper QFX and Cisco Nexus switches and cloud virtualization technology such as Kubernetes & Docker Container etc.

SONUS NETWORKS, Fremont, CA

Principal Engineer

04/2015- 12/2016

- Responsible for complete end-to-end successful release for a critical feature such as Skype for Business SDN Manager with Vellos/NaasIQ SDN Controller (SfB UC API Access), Fault Tolerant/High Availability for Sonus NaasIQ product. This involved defining/writing Functional test specification considering the various customer deployment scenarios, understanding the underlying software architecture for the feature implementation. Successful execution of the feature worked upon within software release cycle time frame and resolving the critical issues found by working with the development team to ensure a stable and high quality software feature release
- Developed an automation frame work from ground up using Python standard libraries such as Unit test and implemented advanced logging mechanism using Python advanced dict config log module. Also implemented custom libraries for the purpose of Automation of Test Suites/Test Cases. This reduced time of software development release cycle by reducing the testing timeframe for the various software features introduced.
- Scalability and Performance using test tools such as mininet for simulating number of switches and traffic flows. Farsight App feature testing, running on Splunk to gather the network statistical data for the NaasIQ product. Openflow enabled Switch Functionality testing.
- Providing technical guidance and assistance with writing of test plan and test specification to team members

IBM, San Jose, CA

Staff Software Engineer

08/2012- 04/2015

- Part of IBM Software Defined/Cloud Networking team, in a role involving automation testing for IBM SDN VE Controller using Python, REST API and ML2 Plugin integration for Openstack.
- Worked upon IBM's System Networking Products Top of Rack switches G8000, G8052, G8124E, G8264, G8264T, G8316, IBM Flex system Fabric EN4093 and EN4093 10Gb Scalable Switches.
- Automation of IxANVLConformance testing for L2, L3 and Multicast protocols. Finding critical bugs for during L2, L3 and Multicast protocols testing and resolving them by closely working along with the software developers.
- Designing and developing test specifications and test cases to verify functional requirements for SDN platforms and REST API and CLI interface(s) utilizing Tcl/Tk, Python and Linux shell scripts. Executing tests to verify software and hardware functionalities of SDN platform controllers, control, and data plane components.
- Designing, building, maintaining, and troubleshooting system test platforms for L2/L3 networking components and virtualization platforms utilizing Openstack, VMware, and KVM.
- Creating and executing manual and automated test scripts for verifying SDN control plane and data plane functionalities utilizing Ixia Test suites and Linux test tools.

CISCO SYSTEMS INC, San Jose, CA

Hardware Engineer

07/2007- 12/2011

- Significant contribution providing critical design verification for highly successful Cisco Data Center products, such as MDS 9xxx series products , Nexus 5K/2K /3K series products and Cat 6K/4K/3K/2K Switches that have generated revenue surpassing \$1B in revenue

- Extensive knowledge on L2 Switching and L3 Routing Protocols. Experience handling N/W traffic equipment such as SPIRENT, SmartBits, IXIA, Agilent SAN tester
- Created Test Plans, Test Procedure, Formal Test Reports for the purpose of feature testing, system testing. Bug tracking and report generation for software features & enhancements parametrical measurements and Automation testing.
- Solid knowledge of IEEE Gigabit Ethernet, Fiber Channel ANSI, TCP/IP Protocol standards and specifications. Designing and developing test specifications and test cases to verify functional and capacity requirements for Data Center grade switches employing 40G/10G/1G Fiber SFP and copper interfaces.
- Work closely with cross-functional development engineering team, understanding related product architecture, defining specifications for emerging technology, and resolving critical software (NX OS or Cisco IOS) issues found during early stage of product development.
- Received Cisco Achievement Performance Award for meeting critical deadline for emerging technology project. The project involved debugging software and hardware related issues and working closely with development engineers

EDUCATION

Data Analytics and Virtualization, Professional Certification Program

UC Berkeley Extension, Jan - July 2018

Master of Science, Telecommunication Engineering Technology, 2008

Rochester Institute of Technology, Rochester, NY

GPA: 3.67/4.00

Honors: RIT & Redcom Laboratories Scholarship Award and International Student Scholarship Award

Bachelor of Science, Electronics & Telecommunication Engineering, 2003

Atharva College of Engineering, Mumbai University, India

ACTIVITIES: Playing tennis and soccer (Placed first in the intercollegiate football competition at the Undergrad level), watching documentaries, Music (Passed with distinction in Grades I & II at the Trinity College of Music, London)