SRIPATHI KAMMARI

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Github Profile : **https://github.com/ksripathi**

CAREER INTERESTS

Programming, Automation, Virtualization, Cloud Computing, Networks and DevOps on GNU/Linux system based environments

PROFESSIONAL SUMMARY

- 3+ years of experience as a DevOps and System Engineering on multiple flavors of GNU/Linux

- High ability to work on Agile projects

- Hands on experience in developing end-to-end micro services using python Flask, Tornado frameworks

- Experience in developing web applications using MVC frameworks (AngularJS)

- Proficient in using Git Version Control System which includes issue tracking, branching and release management of projects

- Experience in writing automation scripts using Python and Shell

- Expert in developing applications in Literate model using GNU Emacs org-mode, Sphinx

- Experience in Virtualization technologies Vagarnt, OpenVZ, Virtualbox, KVM and Docker

- Experience in working with AWS cloud platform services EC2 and have knowledge on others

- Experience in deployment of python, php based application on AWS cloud and other platforms using Auto Deployment services, Jenkins and Travis CI

- Experience in monitoring servers/services using Nagios tool

- Experience in building, automation of network cluster models using Ansible

- Experience in configuration of LAMP stack, Nginx, DNS, DHCP, SSH, Router and other servers

- Experience in writing firewall (IPtable) rules for Redhat CentOS based servers

- Experience in LDAP configuration and accounts management

- Experience in working with ELK stack (Elasticsearch, Logstash and Kibana) for log analysis

- Experience in setting up OpenEdx platform, course management and customizing APIs.

PROFESSIONAL EXPERIENCE

VLEAD, Virtual Labs, IIIT-Hyderabad, India   Sep 2014 - till date
Project Engineer   *(3+ years)*

Description : VLEAD, Virtual Labs Engineering and Architecture Division, based in IIIT-Hyderabad campus, is one of the several teams working on the Virtual Labs project which initiated by the MHRD Govt of India. VLEAD is mandate to design and architect the implementation framework for Virtual Labs, providing all kinds of infrastructure support and services to manage the 100+ lab applications. VLEAD team from IIIT Hyderabad has taken the responsibility of being the Central Engineering Team in hosting the lab applications and providing infrastructure service and support to other engineering teams from various top most institutes in India (IITs and NITs) and VLEAD is currently maintaining cluster of 100+ VMS on different cloud providers (AWS EC2)

Role and Responsibilities:

- Develop end-to-end micro services/web-applications on demand for Virtual Labs project using literate programming model (using GNU Emacs org-mode, Sphinx)

- Deploy the applications/services on testing, staging and production environments (AWS EC2)

- Monitor and mainteanance of test, stage and production servers (200+ AWS Server VMs)

- Release management of Github projects

- Packaging servers/services using vagrant, docker and VirtualBox

- Writing Adapters for management of VMs on AWS EC2, OpenVZ platforms using Python's BOTO library

- Configuration of CI/CD tools

- Management of DNS servers

- Writing backup, restore, migration of databases and YAML scripts

- Administration of Github organization repositories email, LDAP and other accounts

- Guiding team members

Contributions :

- Implemented multiple adapters in Auto Deployment Service for Virtual Labs to deploy labs/services on various platforms (AWS EC2 cloud, OpenVZ platform and others)

- Developed several end-to-end level web portals which are useful to MHRD team, INDIA for visualizing the analytics of labs and information such as user feedback, user interests and other details of workshops

- Implemented outreach, feedback, lab-data-service and analytics micro services using python's Flask framework and ELK stack

- Contributed for building the network architecture for hosting of Virtual Labs and automated the same using Ansible tool

- Configured Google OAuth and Mozilla Persona authorization system for micro services

INTERNSHIP/TRAINING

Spoorthi Communications Pvt Ltd, Hyderabad   May 2013 - July 2013
Media10   *Summer Intern (2 months)*

Description : Media10 is an organization under Spoorthi Communications Pvt Ltd which is mandate to provide computer software support and engineering services required to run 10TV news channel

EDUCATION

Bachelor of Technology in Computer Science and Engineering   May 2010 - May 2014
AP IIIT (RGUKT - R.K Valley)
Rajiv Gandhi University Of Knowledge Technologies, CGPA: 7.52/10.00

PUC (10+2) in M.bi.P.C   Sept 2008 - May 2010
AP IIIT (RGUKT - R.K Valley)
Rajiv Gandhi University Of Knowledge Technologies, CGPA: 8.05/10.00

SSC, Class X   March 2007 - March 2008
Vivekananadha Vidhyalayam, Gandhari, Kamareddy, Telangana, 80.33%

PROJECTS

Project No.1
Title : Virtual Labs College Cloud Platform
Client : MHRD Govt of India
Role : Automation of network cluster creation using ansible YAML scripts, writing documentation using Emacs Org-mode, Sphinx readtheorg
Team Size : 5
Technologies Used : Vagrant, VirtualBox, OpenVZ, Ansible, DNS, DHCP, Router and OpenEdx Platform
Description : Virtual Labs College Cloud Edition is the Portable-Edition for Virtual Labs. It offers the offline version of Virtual labs, experiments and theoretical content. This edition addresses the lack of internet access or poor internet connectivity across different institutes/colleges. It results in a cost-effective Learning Management System

Project No.2
Title : Auto Deployment Service
Client : MHRD Govt of India
Role : Implementation of Adapter Modules to Manage VMS of AWS EC2, OpenVZ, Writing python Unit test cases and configuring Google Oauth authorization
Team Size : 3
Technologies Used : Python Flask, Tornado frameworks, REST API, JSON, Google Oauth, Boto library
Description : Auto Deployment Service is a set of micro services which designed to enable the continuous deployment of all the Virtual Labs on multiple platform providers (e.g AWS EC2)

Project No.3
Title : Analytics Service
Client : MHRD Govt of India
Role : To implement all phases in SDLC
Team Size : 1
Technologies Used : Elasticsearch, Logstash, REST API, JSON, python's Flask framework
Description : It is a micro service which built on Flask python framework using elements of ELK (Elasticsearch, Logstash and Kibana) stack. This service uses REST APIs of elasticsearch database where all the server logs have been pushed from mutliple servers using Logstash tool. This service implemented with set of REST APIs which queries the data from elasticsearch database using REST API calls to satisfy the use case requirements

Project No.4
Title : Lab Data Service
Client : MHRD Govt of India
Role : Writing unit test cases, implementation of database models, building REST APIs and deployment application on multiple environments
Team Size : 3
Technologies Used : python Flask, SQLAlchemy (ORM), JSON and REST API, Python Unittest
Description : Lab Data Service is a micro service which designed to query all the information about the labs in JSON format using REST API(s) interface

Project No.5
Title : Outreach Web Portal
Client : MHRD Govt of India
Role : Implementation of front-end, back-end and deployment
Team Size : 3
Technologies Used : AngularJS, Flask, REST API, JSON, SQLAlchemy (ORM), Python unittest
Description : This project designed to provide the features to conduct the outreach activities across the country,

INDIA and to accommodate all the workshop related artifacts, analytics at single place. And this project built to allow multiple login roles

TECHNICAL SKILL SET

Programming Languages	Python, Shell, C, Java (Core)
MVC Frameworks	Flask and AngularJS
Protocols and APIs	JSON, REST
Editor tools	GNU Emacs
Servers	Apache, Nginx, DNS (Bind), Firewall (IPTable) rules and DHCP
Automation tools	Ansible, make
Databases	MySQL, NoSQL
Data Analytics Stack	ELK (Elasticsearch, Logstash and Kibana)
Web Technologies	HTML, CSS, Javascript, JQuery and PHP
Version Control Systems	Git (Github, Gitlab and Bitbucket)
Virtualization	Vagrant, VirtualBox, KVM, OpenVZ, Docker
Cloud Computing	AWS (EC2, VPC)
Continuous Integration	Travis CI, Jenkins
Other tools	Redmine, MediaWiki

OTHER ACTIVITIES

- Participated in IEEE 2015 conference in Warangal, India

- Participated for DevCon Hyderabad 2017 conference held at Hyderabad, India

- Given several demos for multiple workshop events held at VLEAD, IIIT-H office

- Volunteer multiple times for By Election in India

- Participated 15 days industry oriented summer camp conducted by Swecha organization

- Volunteer in 30 days Virtual Labs integration workshop held at IIT-Gawhathi

- Volunteer for Research and Development show case held at IIIT-Hyderabad college

PERSONAL PROFILE

DOB : 25 July 1993
Marital Status : Single/Unmarried
Father's Name : Sudershan
Languages known : Telugu, English and Hindi