

SRIPATHI KAMMARI

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CAREER INTERESTS

Programming, Automation, Virtualization, Cloud Computing, Networking, DevOps and sytem engineering in 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, issue tracking, branching and release management of github projects
- Experience in writing automation scripts using Python and Shell
- Expert in developing applications in Literate model using GNU Emacs org-mode and 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 and php based application on AWS cloud and in 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
Project Engineer

Sep 2014 - till date
(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 and web-applications for Virtual Labs project needs using literate programming model (using GNU Emacs org-mode, Sphinx)
- Deploy the applications/services on test, stage and production environments (AWS EC2)
- Monitor and maintenance 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 managing VMs on AWS EC2, OpenVZ platforms using Python libraries
- 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
- Giving technical support to the team members

Contributions :

- Implemented multiple adapters in Auto Deployment Service for Virtual Labs to deploy labs/services on various cloud 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 feedback, lab-data-service, outreach and analytics micro services using python's Flask framework and ELK stack
- Contributed for building the network architecture for hosting of Virtual Labs on AWS cloud 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

IIIT-IDUPULAPAYA

Rajiv Gandhi University Of Knowledge Technologies, CGPA: 7.52/10.00

PUC (10+2) in M.bi.P.C

Sept 2008 - May 2010

IIIT-IDUPULAPAYA

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 nodes (100+ VMs) using ansible tool, 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 for Continuous Deployment Service to Manage the 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 : Implementation of all phases in SDLC model

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 consumes 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 service deployment 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 application deployment on multiple environments

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) also to accommodate all the workshop related artifacts, analytics at single place. And this project supports 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-Gawhati
- 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