SRIPATHI KAMMARI

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CAREER INTERESTS

Programming, Automation, Micro services, Virtualization, Networking, DevOps and System 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
- Full stack development using Python Flask, Tornado, AngularJS, JavaScript, CSS and HTML
- Automation using Python and Bash (Shell) programming
- Expert in programming using Literate Programming model with GNU Emacs org-mode and Sphinx tools
- Proficient in GIT version control system, issue tracking, branching and release management of github projects
- Proficient in working with GNU Emacs editor for development environment
- DevOps using Vagarnt, OpenVZ, VirtualBox, KVM, Docker and Docker Swarm
- Experience in AWS cloud services EC2, VPC and knowledge on other services
- Experience in working with ELK stack (Elasticsearch, Logstash and Kibana) for log analysis
- Experience in deployment of Python and PHP based application on AWS cloud and in other platforms using Auto Deployment service, Jenkins and Travis CI
- Monitoring health status and maintenance of servers/services (100+ VMs) of production environment using Nagios tool
- Experience in configuration of network cluster (10+ VMs) nodes using Ansible
- Experience in configuration of LAMP stack, Nginx, DNS, DHCP, SSH, Router and other servers
- Experience in writing firewall (IPTable) rules for RHEL CentOS servers
- Experience in system administration tasks which includes maintenance of Email, DNS, LDAP, Github and other accounts
- 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)

Projects Undertaken :

1 **Virtual Labs College Cloud Platform** (MHRD Govt of India)

(a) **Roles and Responsibilities**

i. Configuration of network cluster nodes (10+ VMs) using Ansible tool

ii. Model implementation using Literate Programming with GNU Emacs org-mode, Sphinx readtheorg

iii. Implementation of Firewall (IPTable) rules for nodes in the cluster

(b) **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

(c) **Technologies Used** Vagrant, VirtualBox, OpenVZ, Ansible, DNS, DHCP, Router and OpenEdx Platform

2 **Auto Deployment Service** (MHRD Govt of India)

(a) **Roles and Responsibilities**

i. Implementation of Adapter Modules to manage the VMS of AWS EC2, OpenVZ

ii. Implementation of Python Unit test cases

iii. Provision and configure the service on test, stage and production environments

iv. Package and publishing service in vagrant boxes

v. Owns the Github source code

vi. Bug fixing, issue tracking and release management of Github repository

vii. Configuring Google Oauth authentication to the service

(b) **Technologies Used** Python Flask, Tornado frameworks, REST API, JSON, Google Oauth and Python Boto library

(c) **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)

3 **Analytics Service** (MHRD Govt of India)

(a) **Roles and Responsibilities**

i. Provision and configure ELK stack on test, stage and production environment

ii. Writing Elasticsearch queries to fetch log analytics in JSON format

iii. Setup and configure Logstash client tool on multiple server VMs

iv. Writing pattern matches for different log patterns for Logstash tool to push the data into elasticsearch database

v. Implementation of REST API(s) interface on top of Elasticsearch service

vi. Security implementation

vii. Service deployment on test, stage and production environments

(b) **Technologies Used** Elasticsearch, Logstash, REST API, JSON and Python Flask framework

(c) **Description**

It is a micro service which built in Flask Python framework using elements of ELK (Elasticsearch, Logstash and Kibana) stack. This service consumes REST APIs of elasticsearch database and exposes set of REST APIs to satisfy the use case scenarios

4 Lab Data Service (MHRD Govt of India)

(a) **Roles and Responsibilities**

i. Implementation of Database models

ii. Data collection from various sources

iii. Writing database migration, backup and restore scripts using Python

iv. Implementation of REST API(s) and documentation using GNU Emacs org-mode, sphinx readtheorg

v. Service deployment on multiple environments

(b) **Technologies Used** Python Flask, SQLAlchemy (ORM), JSON and REST API and Python Unittest

(c) **Description**

Lab Data Service is a micro service which designed to perform CRUD operations on Labs data using REST API(s) interface and JSON as data exchange protocal

TECHNICAL SKILLS

Operation Systems	GNU/Linux and Windows
Programming Languages	Python (Flask), BASH Shell, C and Java (Core)
Web Technologies	AngularJS, DOM, HTML, CSS, JavaScript, JQuery and PHP
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)
Version Control Systems	Git (Github, Gitlab and Bitbucket)
Virtualization	Vagrant, VirtualBox, KVM, OpenVZ and Docker
Cloud Computing	AWS (EC2, VPC)
Continuous Integration	Travis CI and Jenkins
Other tools	Redmine, MediaWiki

EDUCATION

Bachelor of Technology in Computer Science and Engineering May 2010 - May 2014
IIIT-IDUPULAPAYA
Rajiv Gandhi University Of Knowledge Technologies, CGPA: 7.68/10.00

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 10 March 2007 - March 2008
Vivekananadha Vidhyalayam, Gandhari, Kamareddy, Telangana, 80.33%

INTERNSHIP/TRAINING

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

Project Undertaken: RSS Feed Reader