

SRIPATHI KAMMARI

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CAREER INTERESTS

Programming, Automation, Micro services, Virtualization, Cloud Computing, 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 and Docker
- 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 of servers/services of production environment using Nagios tool
- Experience in configuration of network cluster (100+ 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 based servers
- Experience in system administration tasks which includes Email, DNS, LDAP and other account maintenance
- 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)

Roles 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 environment (AWS EC2)
- Release and source code maintenance of Github projects
- Log analysis of production servers using ELK stack

- Monitor and maintenance of test, stage and production servers (100+ VMs)
- Packaging servers/services using vagrant, docker and VirtualBox
- Configuration of CI and CD tools
- Writing backup, restore and migration of databases scripts
- Administration of Github organization repositories, email, LDAP and DNS records.
- Giving technical support to the team members

PROJECTS UNDERTAKEN

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

(a) Roles and Responsibilities

- i. Configuration of network cluster nodes (100+ 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, 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, Python's Flask framework

(c) **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 multiple 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 scenarios

4 Lab Data Service (MHRD Govt of India)

(a) **Roles and Responsibilities**

- i. Writing Python unit test cases
- ii. Implementation of Database models
- iii. Data collection from various sources
- iv. Writing database migration, backup and restore scripts using Python
- v. Building REST APIs
- vi. Writing REST API documentation using GNU Emacs org-mode, sphinx readtheorg
- vii. Service deployment on multiple environments

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

(c) **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

EDUCATION

Bachelor of Technology in Computer Science and Engineering IIIT-IDUPULAPAYA Rajiv Gandhi University Of Knowledge Technologies, CGPA: 7.68/10.00	May 2010 - May 2014
PUC (10+2) in M.bi.P.C IIIT-IDUPULAPAYA Rajiv Gandhi University Of Knowledge Technologies, CGPA: 8.05/10.00	Sept 2008 - May 2010
SSC, Class 10 Vivekananadha Vidhyalayam, Gandhari, Kamareddy, Telangana, 80.33%	March 2007 - March 2008

INTERNSHIP/TRAINING

Spoorthi Communications Pvt Ltd, Hyderabad <i>Media10</i>	May 2013 - July 2013 <i>Summer Intern (2 months)</i>
Project : RSS Feed Reader	

TECHNICAL SKILLS

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

PERSONAL PROFILE

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

SKILLS

- Quick learner
- Excellent debugging skills
- Individual and team player
- Dedication towards deliverables at right time
- Good Professional
- Good Interpersonal Skills

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