Ramesh Balaji

High School Student | Freshman
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Web Developer | Systems Administrator | Linux Enthusiast

Skills

Languages: Python | Java | Ruby | PHP | JavaScript
Operating Systems: Linux | FreeBSD | Android | Windows
Libraries/Technologies: Flask | Laravel | Socket.IO | Docker | Git | Gtk | nginx | Apache2

Independent Experience

Project StarLight (April 2018 – Present)
- Goal: Attempt to replicate an enterprise environment with desktops, servers, and centralized authentication at home with a limited number of physical servers.
- Manage multiple Linux virtual machines with Ansible
- Work with FreeIPA to deploy a centralized authentication solution for various self-hosted applications
- Secure an MkDocs documentation system with Flask and an LDAP server
- Learn how to utilize nginx for deploying PHP web applications.
- Learn how to configure nginx as a reverse proxy
- Run a centralized MySQL database for self-hosted applications.
- Gain experience with the Proxmox virtualization system
- Gain familiarity with the pfSense router/firewall system.
- Gain experience with NFS on Linux and with NFS with FreeNAS

Web Forum Software - Flim (September 2018 – Present)
- Goal: Develop a modern, stable web forum software.
- Work with Flask and extensions relating to Flask, such as SQLAlchemy.
- Build a custom REST API validation framework
- Work with the git version control system to track changes to the software
- Work with the GitLab issue tracker to file and categorize issues with the software.

Volunteering Experience with Technology (October 2017 - Present)

- Helped senior citizens with technology, including OS installation, troubleshooting desktops, laptops, tablets, cell phones, and software-related problems.

Hackathon Experience

HackPHS– EventMgr
- Goal: Create an easier way for people to manage events
- Designed a sign-up system for events using a backend written in Flask-Restful
- Wrote a Python client library using the requests module to use with client websites
- Wrote simple client web applications for each component of the sign-up software

ProfHacks 2019 – NovaSignal
- Goal: Create a "satellite" system that communicates using lasers
- Wrote a web application with a backend in Flask and a frontend in Vue.js to control the satellites
- Wrote a WebSocket server in Flask to communicate with the frontend and to transfer data to an Arduino over serial