Aswin Babu Karuvally

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INTRODUCTION

Free Software enthusiast, developer and trainer, deeply passionate about Network Programming, Operating Systems and IoT. Currently pursuing Masters in Computer Applications

EDUCATION

College of Engineering Trivandrum, Kerala, India
- Master of Computer Applcations   Aug 2016 –
  - CGPA: 7.7 / 10

Naipunnya School of Management, Kerala, India
- BSc. Computer Science   Jun 2013 – May 2016
  - CGPA: 7.9 / 10

LINKS

- **Github**: https://github.com/karuvally
- **Gitlab**: https://gitlab.com/karuvally
- **LinkedIn**: https://linkedin.com/in/karuvally

EXPERIENCE

Consultant, DAMAC Solutions, Trivandrum, Kerala, India   Aug 2018 – Nov 2018
- Tasked with evaluating and deploying cloud backup solution

Developer, Project Lifeboat, Kerala, India   Aug 2018 – Sep 2018
- Developed scripts for removing duplicates from distress call data
- Helped in deploying and maintaining servers
- Coordinated the developement team

Developer and Admin, KnowledgeBase @ CET, Trivandrum, Kerala, India   Jan 2018 – Nov 2018
- Deployed easy to use web file manager for storing academic resources
- Tasked with maintaining and administering the system

Trainer, FestFlick, Trivandrum, Kerala, India   Sep 2017 – Nov 2018
- Served as resouce person for IoT, Python and Linux, Git and Image Processing workshops

Student Faculty, IoT Lab, CET, Trivandrum, Kerala, India   Aug 2017 – Nov 2018
- Tasked with conducting workshops on Linux, Python and IoT devices such as Raspberry Pi

Homepage maintainer, Free Software Users Group, Trivandrum, Kerala, India   Jul 2017 – Jan 2018
- maintained http://tvm.fsug.in

Developer and Admin, Dextro Systems, Alleppey, Kerala, India   Dec 2015 – Jan 2017
- Developer web applications using Python and Bottle
- Deployed and managed projects on PaaS (OpenShift) instances

PROGRAMMING

- **Python 2 and 3**
  - Extensively used Python for network programming, system scripting, automation, web development, IoT, image processing, machine learning and web scraping

- **Shell Scripting**
  - Used BASH as primary language before switching to Python. Developed tools to automate everyday problems such as script for automatically reconnecting dropped dialup connection

- **C**
  - Used C to convert previously written scripts in Python to increase performance and decrease memory footprint

- **PHP**
  - Developed a number of web applications that used PHP to generate dynamic content.

- **HTML5 and CSS3**
  - Developed a number of web frontends for web applications and for static websites.

- **LaTeX and Beamer**
  - Used LaTeX as primary typesetting tool and also for developing slideshows.

- **SQL**
  - Used SQL for storing and retrieveing data from webapps.

TOOLS AND TECHNOLOGIES

- **Linux**
  - Using Linux as the primary Operating System for the past 13 years.
  - Extensively tweaked the OS to match personal and client needs
  - Deployed and maintained Linux Systems including web, file and backup servers
  - Trained students on Linux basics, shell and managing IoT devices running Linux

- **Git**
  - Experienced with Git and Gitflow
  - Worked on a number of personal and third party projects employing Git
  - Trained large number of students on Git

- **Internet of Things**
  - Experienced with Rasbperry Pi and Arduino
  - Used Raspberry Pi for several projects including surveillance
  - Trained students on IoT both inside and outside CET

- **Virtualization**
  - Experienced with KVM, VirtualBox, Hyper-V, VMWare and Docker
  - Extensively used virtual machines for testing and deploying projects

- **Image Processing**
  - Implemented a number of projects in OpenCV including one to differentiate book copies
  - Trained students in Image Processing and OpenCV

- **Numpy and Pandas**
  - Used Numpy for variety of Image Processing and Machine Learning Projects
  - Used Pandas for dealing with really large datasets

- **scikit-learn**
  - Developed demand and car price prediction system

- **Web Scraping**
  - Experienced with Selenium, Scrapy and BeautifulSoup
  - Developed scraping script for Servntire using Selenium

- **Mongo DB**
  - Developed an experimental web app for handling data from large number of distress calls

- **Cloud Computing**
  - Deployed a number of projects onto OpenShift and Digital Ocean
  - Used Google Cloud for processing large datasets for ML project

- **pdb**
  - Used pdb for extensively debugging Python applications

- **Bottle**
  - Uses bottle as the primary framework for web development

- **NMap**
  - Used NMap for monitoring and finding faults with network

PUBLICATIONS

CONFERENCES

[1] Aswin Babu Karuvally, Basith Hameem, Ann Jerin Sundar and John Prakash Joseph "Enhancing Performance and Reliability of Network File System," in *Proceedings of the International Conference for Control Communication and Computing 2018,* Trivandrum India, Jul 2018.

PROJECTS

- **NetDog** - dead simple configuration management   2018
- **Scrapy Project** - scrap server info from Hurricane BGP toolkit   2018
- **Lightup** - reaplcement for Intel's xbacklight utility   2017
- **Buzzer** - Zero cost alternative for quiz buzzers   2017
- **Bak** - Fast, time-stamped archival or present working directory   2016
- **SaveMyCode** - Automated archival of directories upon file change   2015
- **Weather-Get** - Command line application to quickly retrieve and display weather   2014
- **Duplex** - Easy double sided printing on normal printers   2012
- **Modem Reset** - Auto reset and reconnect dialup connection upon failure   2011

INTERESTS

GNU\Linux • Operating Systems • Network Programming • UNIX Philosphy • Shell
Internet of Things • Vintage Computing • Virtualization • High Performance Computing

HOBBIES

Driving • Reading • Collecting vintage computers • Blogging

VOLUNTEERING

- Debutsav 2018, CUSAT, Kochi, Kerala
- Hasgeek Fifth Elephant 2018, Bangalore
- Hasgeek Anthill 2018, Bangalore
- Raspberry Jam Trivandrum 2018, Trivandrum
- Debian Stretch Release Party and Install Fest 2017, Cherthala
- Debian Stretch Release Party and Install Fest 2017, Kollam
- Linux installation fest 2017, FSUG-TVM, Trivandrum
- Free Software User's Group Trivandrum
- Free Software Community of India

AWARDS & ACHIEVEMENTS

- First Prize, Enigma - Linux Talent Hunt, Nakshatra 2018, NIT Calicut   2018
- First Prize, Enigma - Linux Talent Hunt, Nakshatra 2017, NIT Calicut   2017
- Best Paper Award for "Replacing GUI with Shell", Daksha Yantra, IHRD Attingal   2017
- Best CS Student Award, Naipunnya School of Management   2016
- Best Performer Award, Naipunnya School of Management   2016

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