Aswin Babu Karuvally

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INTRODUCTION Developer, trainer and free software enthusiast. Currently working as CAD Engineer at XILINX

EDUCATION

College of Engineering Trivandrum, Kerala, India
- Master of Computer Applcations   Aug 2016 – Jun 2019
  - 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
- **LinkedIn**: https://linkedin.com/in/karuvally
- **Blog**: https://karuvally.github.io

EXPERIENCE

CAD Engineer, XILINX, Hyderabad, India   Jul 2019 – Present
- Developed tool to report Engineers not getting access to their license share
  - Improved job runtime for engineers
  - Reduced turnaround time for Infra team
- Developed AutoKill system for non-compliant jobs in compute cluster
  - Improved license availability for critical jobs
- Conducted company-wide training on ICM GDP Revision Control System
  - Empowered users to fix basic issues themselves

CAD Engineer Intern, XILINX, Hyderabad, India   Feb 2019 – Jul 2019
- Enhanced Compute cluster status check tool
  - Enabled better statistics for compute cluster
  - Allowed easier management, maintenance of cluster

Freelancing, Kerala, India   Dec 2015 – Nov 2018
- Worked as freelance developer, admin, manager
- Worked with institutions to train students on GNU/Linux, Git, IoT and Python

PROGRAMMING

- **Python**
  - Extensively used Python for network programming, system scripting, automation, web development, IoT, image processing, machine learning and web scraping
- **Shell Scripting**
  - Developed tools to automate everyday problems such as script for automatically reconnecting dropped dialup connection. At XILINX, ported CShell scripts to Python
- **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.
- **SQL**
  - Used MariaDB as backend database for web apps and in house automation tools

TOOLS AND TECHNOLOGIES

- **GNU/Linux**
  - Using Linux as the primary Operating System since 2005.
  - Deployed and maintained Linux Systems including web, file and backup servers

- Trained students on Linux basics, shell and managing IoT devices running Linux

- **Version Control**
  - Experienced with Git and Gitflow, Perforce Helix Core, ICManage GDP
  - Served as resource person for Git workshops

- **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

- **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 with MongoDB backend for handling data from large number of distress calls during Kerala Floods - 2018

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

- **Django and Bottle**
  - Used Django and bottle for webapp development

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

- **Deploy It** - simple to use deployer for Python apps   2019

- **NetDog** - dead simple configuration management   2018

- **Lightup** - reaplcement for Intel's xbacklight utility   2017

- **Modem Reset** - Auto reset and reconnect dialup connection upon failure   2011

INTERESTS

UNIX • Free Software • Network Programming • Vintage Computing • Virtualization

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

[*Last updated on 2021-08-12*]