Aswin Babu K

Curriculum Vitae

Karuvally House,
West of Velinilam Temple,
Muhamma P.O, Alappuzha
(+91) 999 505 4663
aswinbabuk@gmail.com
karuvally@cet.ac.in

Aim: To learn, to apply and spread the knowledge

EDUCATION

College Of Engineering, Trivandrum — *MCA*

August 2016 - June 2019

Pursuing MCA, with 7.77 SGPA for Semester–I

Naipunnya School of Management, Cherthala — *BSc.CS*

June 2013 - May 2016

Completed Bachelors in Computer Science with 79% aggregate score

K.E Carmel Central School, Muhamma — *HSS*

June 2011 - May 2013

Completed Higher Secondary education with 69% score

SKILLS

Linux Administration

Started using Linux with Fedora Core 1 in 2005. Extensively tweaked the system to meet specific needs

Scripting and Automation

Used BASH and Python to automate systems, enable automatic data backups, ensure network connectivity etc.

Virtualization

Has used Virtualization tools such as VMWare Workstation, VirtualBox, KVM and Hyper–V, to experiment with alternate Operating Systems and in simulation computer networks.

Training

Conducts workshops and training on Linux basics, Shell programming, IoT, Python, Version Control, Image Processing etc.

Links

Git: github.com/karuvally
Git: gitlab.com/karuvally
Blog: karuvally.github.io
linkedin.com/in/karuvally

LANGUAGES USED

Python, Lua, C, C++, Java, PHP, Javascript, HTML, BASH, Batch script, Haskell

Internet of Things

Co Founded a company concentrating on IoT technology, has extensively worked and trained students in single board computers including Raspberry Pi, Beaglebone, Microcontroller boards including Arduino, NodeMCU etc.

Image Processing

Worked and trained students in Image Processing with OpenCV and Python

Machine Learning

Worked with SciKit Learn, Numpy, Keras to solve problems, including a system for predicting second hand car price

Web Development

Has developed and maintained a number of web applications powered by Python, Django and Bottle

ACHIEVEMENTS

Best CS Student Award, 2016

Was declared the best student of Computer Science department-2016 Naipunnya School of Management

Cofounder Dextro Systems, 2016

Cofounded technology startup Dextro Systems, concentrating on new technology, including Internet of Things, Linux and web development

Winner - Enigma, 2017

Winner of Linux talent hunt conducted as part of National MCA Meet at NIT, Calicut

Best paper award - Daksha Yantra, 2017

Won the best paper award for the paper titled "Replacing GUI with the Shell" in Daksha Yantra, the annual tech fest of College of Engineering Attingal, Trivandrum

Winner - Enigma, 2018

Winner of Linux talent hunt conducted as part of National MCA Meet at NIT, Calicut

Organizer - Raspberry Jam Trivandrum, 2018

Conducted the introductory session on the first Raspberry Jam event in India.

Modem_Reset — *Maintain persistent dial-up connection*

Scripted in BASH, modem_reset initiates a dial-up internet connection according to given credentials. If the connection fails, resets the modem and re-establishes the connection with negligible downtime

Impulse — Easy *customized bulk messaging*

A bulk messaging application with a web interface. Can read contacts and their details from an excel sheet, then inserts the details dynamically to a message template, and sends it to each contact

Bak — *Ultra lightweight backup utility*

A utility that when run from the command line - archives the current directory with date and time to predefined destination(s)

Lightup — *Control backlight brightness*

Lightup is a utility to control backlight brightness in Linux computers. It can replace the no longer working Intel's xbacklight utility

Bali — *Unobtrusive battery monitor*

Bali is a battery monitor for machines with very low resources, running stripped down window managers, eg. Openbox

Piget — *Automated file retrieval over FTP*

Automatically retrieves predefined set of directories from a remote computer over FTP. Especially helpful when running a tasks generating large data on IoT devices eg. Raspberry Pi with limited onboard memory

Buzzer — *Low cost replacement for quiz buzzers*

Designed to eliminate the need for hardware quiz buzzers, utilizes multiple keyboards connected to a CPU to act as buzzers and shows which participant pressed the key first with millisecond precision

SaveMyCode — *backup utility for programmers*

Monitors predefined directories for file changes and automatically

backs up whenever changes are found.

Weather-Get — *Weather utility for the terminal*

Delivers current weather and forecast for your location to the Linux terminal. The data is retrieved from Weather Underground

Duplex — *Easy double sided printing*

Duplex is a utility to enable a user to easily print double sided documents on cheap single sided printers

Traffic Analyzer — Helps *analyze traffic speeds*

Processes data from RFID tag scanners to analyze traffic speeds

Book ID — Identify individual book copies using CV

The project tries to distinguish and identify individual copies of books.

NetDog — Easily manage computers on network

Bring up and down computers on the network, deploy software and transfer files without worrying about IP changes

WORK EXPERIENCE

Developer and System Administrator, Dextro Systems

May 2016 - June 2017

Developed backends for web applications and UI skeleton, managed PaaS (Openshift) instances running deployed projects

Homepage maintainer, Free Software Users Group - TVM

July 2017 - January 2018

Maintains the website of Free Software Users Group, Trivandrum

Student Faculty, IoT Lab, CET

August 2017 - Present

Tasked with conducting classes relating to microcontroller programming, Python on embedded devices, networking, network security and generic IoT courses for students of CET

Trainer, FestFlick

September 2017 - Present

Trainer at the event management startup FestFlick tasked with giving workshops and training on Linux, web development, Python scripting etc.

Developer and Admin, KnowledgeBase, CET – TVM

January 2018 - Present

Develops and maintains a knowledge base for the students of MCA, College of Engineering Trivandrum

Developer, Project Lifeboat

August 2018

Developed server side scripts, supported deployment and monitoring of servers for helpline system during Kerala floods.

Developer, Scrapy Project

August 2018

Developed web scraper for an ongoing project at Serventire

INTERESTS

Operating Systems, Linux, other Unices, Virtualization, Internet of Things, Image Processing, Automation, Free Software, Vintage Computing

HOBBIES

Collecting and maintaining vintage computers, Using classic Operating Systems, Retro gaming, Reading, Driving

PUBLICATIONS

Enhancing Performance and Reliability of Network File System – International Conference on Control Communication and Computing, 2018

July 2018

The paper proposes a number of methods for improving the performance of network file system while reducing data corruption