AKHIL LAWRENCE

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ABOUT ME:

In simple words I would say open source enthusiast who is interested to learn, collaborate and build cool stuffs. Currently working with python and other open source technologies in Harman (a Samsung company).

PROFESSIONAL SUMMARY :

- ✓ 3+ years experience in software system development using open source technologies
- ✓ Good experience in working with Agile methodology
- ✓ Good experience in using CI tools like Jenkins, Travis etc
- ✓ Good working experience in Docker containers and distributed applications
- ✓ Good working experience in web frameworks like Django, Django REST, Flask
- ✓ Good working experience in Google cloud platform
- ✓ Good working experience in different protocols like OpenID, OpenID Connect, OAuth2.0, Google users API, SIP, RADIUS etc
- ✓ Good working experience in developing VOIP server applications
- ✓ Good working experience in databases like MySql, Oracle, Sqlite
- ✓ Flexible to work in any new environment and project

PROFESSIONAL EXPERIENCE :

Organization	Designation	Duration
Harman	Senior Engineer - Product Development	From November 28th to Present
Qburst Technologies	Software Engineer	From October 22nd 2014 to November 20th 2015
Braddock Infotech (P) Ltd	Programmer	From June 3rd 2014 to October 17th 2014

PROJECTS :

✓ **SF&I 2.0** - SAAS product to automate the buy sell process of vehicles in the automotive industry. Developed using Python, Django, Django REST, IBM datapower, Jenkins, GIT, GitHub, Redis, Celery, Bootstrap, SQLAlchemy

Roles : Building and modeling product artifacts to improve the product/user experience. Formulating problem definition and requirements, and proposing solutions for lender solution products on SF&I2.0 platform. Interact and co-develop with client teams to integrate data transformation services. Ensure that all project documentation is produced in the standard format, that it follows internal documentation processes and is reviewed and approved. Work with Change control and Infrastructure team for successful deployment of developed features by team in QA and PROD environment.

✓ **Gallery Baraweez** - It's a shopping site that enables users to create customized portraits and get it printed on any desired material of their choice.

Roles : Create Arabic version of site using django model translation. Provide RESTful API's for the Android and IOS apps using django REST framework.

✓ **Dell Feedback App** - It's an application for collecting customer feedbacks in the stores. The application consists of an admin portal and RESTful API's. Admin portal enable the store manager to evaluate their employees and RESTful API's enable the communication between server and the mobile app used for collecting feedback.

Roles : Develop RESTful API's using django rest framework. Generate different reports in the admin portal based on the opinions collected from customers.

✓ **SPACE** - It's an ERP software for automating different operations associated with a company.

Roles : Develop a custom framework for SPACE using python, django and django-rest having the ability to support different storage options available in Google cloud, dynamic serializers, Iterators for fetching results for large datasets, middlewares supporting different authentication protocols like OpenID Connect, OAuth2.0 etc. Rewrite the codebase using the new framework.

✓ **RADIUS (Remote Authentication Dial in User service)** – It is a networking protocol used for providing centralized Authentication, Authorization and Accounting. In this project we developed a server application to enable our telecom system to handle

RADIUS signals. Also a simulator to test the RADIUS protocol in our systems (Server was implemented using PHP and simulator using Python)

Roles : Learn about switch from vendor (Telcobridge Germany - https://www.telcobridges.com/). Learn and develop a server that is compatible with RFC 2865 of IETF. Implement forking to handle increasing load on the server. Develop database for storing LCRs from LERG (local exchange routing guide) and write queries for identifying calls, call types, routes etc.

✓ **SIP (Session Initiation Protocol)** – It is a signaling communication protocol used in voice and media communication over IP networks. We developed a SIP redirect server and SIP proxy server that could enable the use of SIP signaling in our networks (Developed using node.js, Python and PHP)

Roles : Learn and develop a server that is compatible with RFC 3261 of IETF. System was designed to operate in non blocking mode. APIs has been developed to push CDRs to Crossgrid and Crosstat (Statistical analysis softwares used in our telecom systems). Develop database to holds dialoges, transactions and LCR from LERG and write queries to identify and route call properly.

✓ **Crossgrid LCR Client** – It's an application that will find LCR (Least cost routes) for calls that occur through our network (Developed using PHP)

Roles : Maintain the SS7 signaling client by modifying it according to the coming updations in T9 switches

✓ **Cross CDR** – An application to pull CDR (call detail records) from different switches like Meta, Genband, Lumen, Broadsoft and to perform statistical analysis on the available data (Developed using Python Django and BafPRP)

Roles : Develop services to pull CDRs from switches and to convert raw CDR files to valid formats using tools like BafPRP. Develop application to present CDR data graphically. Integrate wireshark API for sniffing packets coming to the switch interface and present information graphically.

✓ **Cross Fraud** – An application to monitor calls through different switches and to identify fraud calls. On identification, frauds are blocked within the switch using the switch apis (Developed using Python Django)

Roles : Develop services to pull CDRs from switches and to identify fraud calls. Develop application for presenting fraud call details and integrate switch APIs to block calls in the switch.

PROFESSIONAL COURSES COMPLETED:

Course	Institution	Year	Marks
CCNA	IPSR Solutions Ltd.	2014	NA

EDUCATIONAL QUALIFICATION:

Course	Board/University	Year	Marks obtained
B.Tech in Electronics and communication engineering	University of Calicut	2013	69.3%
Plus two	Kerala state board	2009	91%
SSLC	Kerala state board	2007	88 %

ACADEMIC PROJECT WORK DONE:

- ✓ **Software defined radio** - A radio that uses software techniques on digitized radio signals. The fundamental intent is to shift from employing a traditional hardware-focused, application specific approach to radio implementation to using a software application to perform the radio tasks on a computing platform.

- ✓ **PC based oscilloscope** - PC based oscilloscope is used to view the waveforms of various types of electrical signals. There is a circuit which conditions different signals and computer is used to process and to display the waveform on the screen.

SEMINAR:

- ✓ **Parallel data processing using MapReduce** - MapReduce is a framework for processing parallelizable problems across huge datasets using a large number of computers (nodes), collectively referred to as a cluster (if all nodes are on the same local network and use similar hardware) or a grid (if the nodes are shared across geographically and administratively distributed systems, and use more heterogeneous hardware)

TECHNICAL SKILLS:

- ✓ Python, Django framework, Django-rest framework, Celery, Redis
- ✓ Google cloud platform
- ✓ Docker, Jenkins
- ✓ Open ID, Open ID Connect, OAuth2.0, SIP, RADIUS, REST
- ✓ GIT, GitHub
- ✓ LINUX (Redhat, Ubuntu, Fedora) and Windows Operating systems
- ✓ PHP, Cake PHP, Wordpress
- ✓ CSS, HTML, Jquery, Bootstrap

LANGUAGES KNOWN:

Language	Read	Write	Speak
English	Yes	yes	yes
Malayalam	yes	yes	Yes
Hindi	yes	yes	no

PERSONAL DETAILS:

- ✓ Age : 25 years
- ✓ Date of birth : 10th July 1991
- ✓ Marital status : single
- ✓ Nationality : Indian

REFERENCES:

Available upon request