



## CONTACT

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Language: English(fluent)

# BIKRAM DHOJU

NETWORK AND SYSTEM  
ADMINISTRATOR/SOFTWARE  
ENGINEER

## KEY SKILLS AND EXPERIENCE

### 1. Software Development

- Django and Flask framework for python
- ORM and MVC understanding
- REST API development (<http://bikramdhoju.com.np/network&system/Imgur-image-uploader-flask-Python/>)
- Asynchronous task handling with Celery and RabbitMQ(as data broker)
- Understanding of Elasticsearch & threading limitations of Python, and multi-process architecture.
- Python GTK +3 Sugar activity development from Debian based system (<https://github.com/sugarlabs/sugar-docs>)

### 2. Linux System

- Centos and Ubuntu kickstart and tuning
- Linux router development in 2 interface system with iptable port forwarding.
- Private DNS server development with DNS sinkholing using Bind9 (<http://bikramdhoju.com.np/network&system/DNS-Series-1/>)
- Fileserver system with SMB and owncloud
- Intrusion Detection using fail2ban
- Advance bash scripting, python(both scripting and web programming)

### 3. Android App Development(Intermediate)

- A basic understanding of layouts and views
- Activities and their lifecycle
- GoogleMaps
- RestFULL API with retrofitting parsing
- Collection views (like ListViews and Recycler View) and Adapters (default and custom)
- Push Notification with GCM and Firebase

### 4. Automation/Build Tools:

- Distributed deployment using Kubernetes and Docker swarm, Jenkins, Gitlab-CI/CD

### 5. Languages:

Python, Shell scripting, basic C/C++ and basic Java

### 6. Log Management:

Centralized log management: Elasticsearch, Logstash, Kibana (ELK)

### 7. Network/Infrastructure:

TCP/IP, DNS, DHCP, LDAP, AD

### 4. Pen Testing:

Metasploit, Nmap and Wireshark

### 7. Databases:

MySQL, Postgres, MongoDB

### 8. Version Control Systems:

Mercurial and Git

### 9. Platforms:

Linux and UNIX, Android, Windows

# WORK EXPERIENCE



## SR. DEVOPS AND SYSTEM ENGINEER / TECH LEAD

Open Learning Exchange, Nepal | June 2015 - Present

Environment: Docker, Kubernetes, Linux Customization, Puppet, Development & GitLab-CI

- Creating fully automated CI build and deployment infrastructure and processes for multiple projects
- Developing Docker images to support Development and Testing Teams and their pipelines; distributed Jenkins, images, and Elasticsearch, Kibana and Logstash (ELK) etc
- Building IT solutions, translate technical requirements, assist with all stages of test data and perform script maintenance and updates of office servers.
- Lead strategic as well as tactical efforts to architect, implement, monitor, and improve 24/7 network operations of servers.
- Research to integrate new technology to education on the basis of predefined constraints.
- Develop customized Linux routers and file servers.
- Developing scripts for build, deployment, maintenance and related tasks using Jenkins, Docker, Python and Bash
- Closely work with the partner organization which includes OLE Intl and OLE Ghana to collaborate edtech projects
- Contribute the team in updating and upgrading the NEXS (customized OS for offline E-Library deployments)
- Assist in integrating and releasing content for E-Library for online and offline deployments.
- Manage pool of associates and interns.
- Conduct workshops and training to team.



## SYSTEM ENGINEER

F1Soft International | Dec 2014-June 2015

Environment: Windows, Linux, Java, Tomcat, Oracle, Mysql, RHEL

- Managing and monitoring all installed systems and infrastructure
- Installing, configuring, testing and maintaining operating systems, application software and system management tools
- Walk clients through the products.
- To recommend system and bring positive change to existing infrastructure.
- Ensuring the highest levels of systems and infrastructure availability

# PROJECTS

## EPUSTAKALAYA (E-LIBRARY)

Project Duration : 1year and running

E-Pustakalaya is a library management system that can be used to handle basic bookkeeping function of a library. It is under development. With its ample use of python libraries to store dynamic content provides user-friendly user interaction.

Doc. <http://pustakalaya.readthedocs.io/index.html>

Team Member:

Lead System Engineer/ DevOps: Bikram Dhoju

Lead Software Developer: Manoj Gautam

Software developer: Bhojraj Karki

Features:

1. Python's popular Django framework
2. Lightning search of approx. 8000 digital contents with Elastic search integration
3. Celery integration with for asynchronous tasks as pdf to image conversion.
4. Deployment with Docker swarm for the system integrity.

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## WIRELESSNAKSHA, WIRELESS ASSESSMENT SYSTEM

Major Project Duration : 1year

WirelessNaksha is the crowd-sourcing based project centered on the collection of wireless information from the users around the valley. Crowd-sourcing is performed using an Android app and visualization on web application.

Features:

1. Creating skeleton application UI using eclipse IDE.
2. Truly MVC structure application.
3. Strictly follow Activity Life Cycle with keep in mind Process Service Life Cycle.
4. Intent (explicit, implicit), Multi-threading.
5. Map Activity, Map Controller, LocationManager, Location Listener.
6. MySQL and Sqlite synchronization
7. Telephony and Broadcast Receiver

Supervisors: Dr. Nanda Bikram Adhikari ,Prof. Pulchowk Campus

Dr. Omprakash Gnawali,

Asst. Prof Houston University,Houston,US

Mr. Topraj Gurung,

Software Engineer at Facebook Inc., Silicon Valley,US

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## EDUCATION

Bachelor in Electronics and Communication Engineering

Pulchowk Campus,IOE, TU | 2010 - 2014

Elective: Networking with IPv6 and Remote Sensing

INTERMEDIATE PCM Major

Kathmandu Don Bosco College, Nepal | 2009-2010

Physics,Chemistry and Maths

School Leaving Certificate (SLC)

Tarapunya Education Academy,Pokhara,Nepal

## PERSONAL SKILLS

Hardware Co-Ordinator

- Locus 2014, Tenure:1 year

Vice-President

- Kathmandu Don Bosco/Kanjirowa Alumni, Tenure:1 year

President

- Society of Kaski Engineering Students (SOKES), Tenure:1 year