SARATH LAKSHMAN

CAREER OBJECTIVE
Seeking a career as Software Engineer with a dynamic organization that will enable me to apply my technical skills and provide the opportunity to utilize my full potential in the engineering profession.

SUMMARY

Education
- Bachelor in Technology (B.Tech) in Computer Science

Technical Skills
- Languages: Python, Shell Scripting, C/C++, Sed, Awk, HTML/CSS, PHP, Javascript, SQL
- Technologies and Tools Known: Django, Google Appengine, PyQt, PyGTK, MySQL, Git, Subversion, Gstreamer, Gdb, XMPP, Dbus, GNU Make, Facebook Socialgraph API, Android development.
- Operating Systems: GNU/Linux (Ubuntu, Pardus, Fedora), Mac OSX
- Acquired sound knowledge and understanding in GNU/Linux, Scripting and Data Structures.

Highlights
- Open Source evangelist and contributed as developer to projects *Pardus, Fedora, Swathantra malayalam computing and Istanbul.*
- Worked as student developer for Google in 2008, 2009 and 2010 during **Google Summer of Code participation** and successfully completed projects.
- Well known as **developer of SLYNUX (2005)** – A user friendly GNU/Linux distribution for newbies. Received high media attention on national and international levels.
- Author of many articles **published on Linux For You magazine** since 2008 on columns *Developers, Open Gurus, For You and Me, Let us try.*
- Author of **Linux Shell Scripting Cookbook by *Packt publishing, UK.***
- Winner of many national level contests on Linux scripting and debugging, Hacking and web development.
- Open Source technology and development speaker for several events including, **FOSS.IN 2005**, FOSSMeet@NITC and at many engineering colleges.
- Worked as **web administrator for MEC** (www.mec.ac.in)**,** college web server.
- Active blogger since 2005 and maintains a blog at ***http://www.sarathlakshman.com***

ACHIEVEMENTS
- **Second prize for Verisign InCTF Hacking contest**, an all India level first Capture The Flag style hacking contest by competing with 160 teams all over India.
- **First place in Crack the Shell**, An online GNU/Linux scripting contest conducted by National Institute of Technology (NIT), Trichy as part of Pragyan 2010, A national level technical fest by NIT, Trichy
- Second place in **Digital fortress, An online Hacking contest** conducted by National Institute of Technology (NIT), Trichy as part of Pragyan 2010, A national level technical fest by NIT, Trichy
- **First prize for Linux kernel debugging contest**, Abhayantriki 2010, Conducted by Rajagiri School of Engineering and Technology.
- Developed SMSBuddy, A desktop SMS Messenger for India. (Based on way2sms.com backend)
- A leading daily (Malayala Manorama) published Sarath Lakshman as one of the **Manorama top ten youth icons** who made an impact in 2009. (Manorama Metro, Ernakulam suppliment Jan 1st 2010)
- **Second place in Hackmaster** - an online Hacking contest for Excel X, a National level technical festival of Model Engineering College.
- First place in Web design contest at Zealous 2009, Techfest organised by College of Engg, Cherthala
- **Developed the official website** for Technopreneur 2009 (http://www.technopreneurmec.org) and lead development team for Excel 2010 website (http://www.excelmec.org).
- **Organizer of FOSSMeet @ MEC 2009**, A Free and Open Source Meet at Model Engineering College.
- **First prize for Linux Guru contest, Excel 2k9, MEC**
- **Second prize for Linux Guru Contest, Excel 2k8, MEC**
- Developed heap41a / win32.usbworm removal fix for Windows. It was the only available automated and easy quick fix for the worm. A few hundreds downloaded and fix had become famous over the internet.
- Participated in 12th National Children's Science Congress held at Guwahati by winning state and regional levels

- **Received 'Science and Technology award' and cash prize from the Govt. of Pondicherry for developing 'SLYNUX'.**

PROJECT SCAN

❏ **Title:** **Android Remote Cam Video Device through Wifi**
Duration: December 2010 – February 2011
Environment: Android Java, Linux Kernel, C, Gstreamer
Synopsis: Android devices comes with very good quality camera and wifi connectivity. If we could use the android device camera and use it like a web cam for a remote Linux host machine, that would be interesting. During this project, developed an android application and kernel device driver to setup an android remote camera through wifi.

Highlights:
- Developed android application that video streams over wifi to the host machine
- Wrote Gstreamer pipeline to handle reception of h.263 frames and video conversion
- Developed a custom gstreamer element for negotiation and video writing to video device node
- Kernel module based on Video4Linux to create a device that converts video frames to video device nodes.
- Any user space application can handle the generic video device as if a physically attached webcam.

❏ **Title:** **Live OS installer for Pardus Linux**
Duration: May 24 2010 – August 16 2010
Environment: Python, PyQt, C, Shell Scripting
Synopsis: Pardus Linux distribution is a nationwide Linux distro for TURKEY. Pardus lacks the Live installation to hard drive option while most of the competing Linux distros have. It comes with separate Live and Installable versions. During this project, developed a Live CD installer software that can install Pardus on a hard drive on demand.

Highlights:
- **Google Summer of Code 2010 project under the mentor organization, Pardus Project.**
- Development based on YALI (Yet Another Linux Installer) project of Pardus
- Designed UI, Backend for file copying, generating configuration files, setup boot loader, kernel modules and the file system environment, User addition support.
- Implemented efficient file copy python module on C to overcome performance limitations of cp and du commands in Linux based installation progress reporting.
- Wrote patches for the Pardus operating system ISO build utility (Pardusman) to embed and support Live installer.
- Also developed an application install2live that can build ISO of Live Pardus from an installed pardus on Hard drive.
- Live installer will be shipped with Pardus 2011 distribution officially.
Project URL: http://socghop.appspot.com/gsoc/student_project/show/google/gsoc2010/pardus/t127230768169

❏ **Title:** **Web based customized Pardus distro creator (Pardusman)**
Duration: May 23 2009 - August 24 2009
Environment: Django, Python, Shell Scripting, XML, PISI, AJAX, JQuery, HTML, CSS, Memcached, SQLite
Synopsis: A web UI based tool to create and download customized versions of Pardus Linux distribution used nationwide in Turkey.

Highlights:
- **Google Summer of code 2009 project under the mentor organisation Pardus Project.**
- AJAXified project wizard User Interface to collect data from users.
- Supports user home directory uploads, custom users, packages, wallpapers and more.
- Backend for pardusman which builds ISO from custom configuration by parsing live package repositories based XML project file.
- Developed the server daemon (buildfarm) for scheduling the ISO builds with load balance queuing.
- Capable of building both Live as well as Installation ISO
- Competes with SUSE studio – a similar web distro build utility for SUSE Linux
- Hosted at pardusman.pardus.org.tr for testing and to be released for public officially after migration to larger cloud.
Project URL: http://socghop.appspot.com/gsoc/student_project/show/google/gsoc2009/pardus/t124023187248

❏ **Title:** **Major feature improvements for PiTiVI Open Source video editor project**
Duration: May 28 2008 – August 18 2008
Environment: Python, Gstreamer, DBus, PyGTK, Istanbul
Synopsis: PiTiVi is the default video editor that ships with most of all standard Linux distributions including Ubuntu. Developed and integrated several input capture methods and improved PiTiVi during the project period.

Highlights:
- **Google Summer of Code 2008 Project under mentor organization Fedora and JBOSS mentored by John Palmieri, author of DBUS IPC.**
- Developed video/still capture from webcam support.
- Developed network video/audio stream capture support .
- Developed desktop screencast support.
- Patches for instanbul screencast tool to expose methods using Dbus.
- Merged GSOC branch into upstream code and available with PiTiVi
- Mentor's testimonial : http://www.j5live.com/2008/10/17/pitivi-video-editor-coming-along-nicely

Project URL: http://code.google.com/soc/2008/fedora/appinfo.html?csaid=53F22CD6DEC4CD58

❏ **Title:**   **SLYNUX Linux distribution**
Duration: July 2005 – December 2005
Environment: Shell Scripting, C, Kernel patches, Qt, Gambas
Synopsis: GNU/Linux was regarded as a difficult operating system and few users worked on it due to lack of user friendliness during 2005. SLYNUX is a user friendly GNU/Linux distribution for newbies of Linux based on Debian.

Highlights:
- Live CD with Installation support.
- Microsoft Windows like user interface based on KDE with lot of drivers packed with it
- Ranked 14th best distro in the world on Distrowatch.com in a week of release
- Captured international exposure with online and offline media and featured worldwide on 100s of websites, Television channel interviews, and news reports, notable on The Hindu newspaper Young Achievers supplement, CXOToday.com special report and more.
- User base of more than 1000 with 100 downloads on the day of release.

Project URL: http://www.slynux.org (Distro is no longer maintained)

❏ **Title:**   **Wireless Linux Terminal Server Project (WLTSP)**
Duration: Jan 2010 – March 2010
Environment: LTSP (PXE), NFS, Busybox, Pulseaudio, Pardus, Python, Shell Scripting
Synopsis: Microsoft Windows platform has support for Thin client systems through LAN as well as WLAN technologies while Linux lacks WLAN based thin client support. Developed Wireless LAN based thin client support for Pardus Linux distribution.

Highlights:
- Developed client os image build tool and flasher to USB bootable storage.
- Developed server side component for supporting client boot.
- Ported wireless-tools utility to Busybox environment.
- WLTSP clients booted with KDE desktop through network.

❏ **Title:**   **Slash Bin Slash Bash Web application**
Duration: October 2009 – November 2009
Environment: Python, Google Appengine (GAE), HTML, CSS
Synopsis:
Development of web application to conduct national level online Linux Shell Scripting contest.

Highlights:
- Web application which takes registrations from users through google account authentication
- Automatic event timing and scheduling with three rounds.
- Random question selector with tie breaker and result calculation for preliminary round
- Successfully conducted the contest with more than 200 participants.

❑ **Title:** **Pics-Packet**

Environment: Facebook, PHP, Socialgraph API, JQuery
Duration: Single day
Synopsis: A facebook application for downloading photos owned by friends as well as tagged photos as zip archive.
Highlights:
- Download many photos as zip archive
- Photo viewer using lightbox javascript framework
- Option to selectively download photos from the available photos

Project URL: http://apps.facebook.com/picspacket/

❑ **Title:** **School Admin**

Environment: Python, PyQt, MySQL
Synopsis: Application for managing school admission process for higher secondary schools
Highlights:
- Served for higher secondary school admission process in Mahe region.
- Version available for Windows and GNU/Linux

Project URL: http://code.google.com/p/school-admin

NOTABLE ACCOMPLISHMENTS

❑ **Successfully carried:**
- **Mentor** Role at Dreamajax Technologies, Bangalore (May 2010 – July 2010) – Resume Bakery project.
- **Web administrator role**, MEC web and its maintenance
- **Talks and Seminars head** – Excel 2010, Model Engineering college.
- **FOSS programs** – in Charge, Computer Science Association, MEC.

❑ **Actively organized:**
- **Hackfest @ Excel 2010, An open source software development workshop.**
- **SlashBinSlashBash (2009)** - National level online Linux shell scripting contest.
- FOSSMeet @ MEC 2009, A one day Free and Open Source Meet at Model Engineering College.

❑ **Speaking experience:**
- **FOSS.IN 2005** International conference – One of the youngest speaker of the event and conducted talk *"Live CD remastering workshop"*
- **FOSSMeet@NITC 2010**, National Institute of Technology, Calicut – Conducted *"Django rapid web development workshop"*.
- **FOSSMeet@NITC 2007**, National Institute of Technology, Calicut – Live CD Workshop
- **Rendevouz 2k6** -   Calicut University campus. Spoke on *"Kick start with GNU/Linux"* for students".
- **FOSS Contribution HOWTO** – TOCH engineering college, Cochin

❑ **Significantly published:**
- Published 12 articles on **Linux For You magazine** since 2008 on various topics featured in columns *Developers*, *Open Gurus, For you and Me* and *Let us try*.
- **Linux Shell Scripting cookbook** by **Packt publishing, UK** with 360 pages, and 9 chapters. (ISBN: 978-1-84951-376-0, January 2011).
  URL: https://www.packtpub.com/linux-shell-scripting-cookbook/book

SCHOLASTICS
❑ **Bachelors in Engineering** (Computer Science) from Govt. Model Engineering College, Cochin (2007 - current). **Secured 76.5 %** marks.

❑ **Higher Secondary Certificate** from St. Josephs Higher Secondary School, Thalassery, Kerala in **2007**. Secured **93.60**% marks

❑ **Senior Secondary Certificate** from Jawaharlal Nehru Higher Secondary School, Mahe, Kerala in **2005**. Secured **92.60**% marks

PERSONAL DOSSIER

Date of Birth	:	19-09-1989
Languages Known	:	Malayalam and English
E-mail	:	sarathlakshman@slynux.com
URL	:	**http://www.sarathlakshman.com**
Contact Address	:	"Anaswara"
		Perumunderi
		New Mahe - 673311
		Kannur District
		Kerala
Mobile	:	+91 9446857967

REFERENCES

- John Palmieri, Mentor – Google Summer of Code 2008
- Ekin Meroglu, Mentor – Google Summer of Code 2009
- Mete Alpalsan, Mentor – Google Summer of Code 2010
- Mrs. Preetha Theresa Joy, Head of the Department, Model Engineering College, Cochin.