

SAMARENDRA M HEDAOO

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INDUSTRY & ACADEMIC EXPERIENCE

Indian Institute of Technology Bombay

June 2015 - Present

Project Research Assistant

Mumbai, India

- System Administration of the Linux-run GPU Cluster of the GPU Centre of Excellence, IIT Bombay
- Providing support for scientific computing users all over India for moving towards GPU-based computing,
- Liaising with IBM for the setup of OpenPOWER Research Facility at the IIT Bombay
- Part of a team conducting workshops on *Parallel Computing using GPUs* all over India - 9 and counting

Clevershell Software Solutions

Feb 2014 - May 2015

Founder CTO

Pune, India

- Collaboration with [Hewe s.p.r.l., Burundi](#) (Africa) for developing various SMS-based apps
- Architecture design and development of a SMS-based marketplace for farmers in Burundi
- Setting up and maintaining Linux servers and Kannel, httpd, celeryd
- Creating chowk – A traffic router for Kannel and RapidPro - <http://git.io/veiJ2>
- Creating playsms.chowk – A traffic router for multiple Kannel servers and PlaySMS - <http://git.io/vf9tQ>
- Creating envaya_nexmo – A backend for the RapidSMS framework to send SMS using Nexmo and receive using the EnvayaSMS Android app - <http://git.io/veiUU>

Pramati Technologies Pvt Limited

Jan 2013 - Jan 2014

Development Engineer

Hyderabad, India

- Infrastructure and Configuration Management using Puppet extensively
- Extending Puppet with native types, providers and custom functions.
- Creating automation solutions using bash and Python
- Monitoring the IT infrastructure using Cacti and Nagios
- Bundling virtual environments for use in product and configuration management testing using Vagrant
- Setting up Continuous Integration jobs in Jenkins for product testing using the packaged Vagrant VMs
- DEB packaging for in-house software
- Creating and tweaking cacti templates
- And writing Puppet Koans! <http://git.io/veiTK>

Intellectap Software Technologies Pvt Limited

Jan 2012 - Dec 2012

Software Developer & Development Operations Engineer

Pune, India

- Setting up and tweaking Gitolite, Redmine and Bugzilla
- Managing Linux, httpd, mysqld, merb, rails, rvm and Passenger Phusion environments
- Creating automation solutions using bash and Python
- Development of a web-based module using merb for Mostfit – an open source MIS for Micro-Finance Institutions

Bharat Sanchar Nigam Limited

Dec 2011

Freelancer

Pune, India

- Development and setup of a SMS-intimation system for the Pay department, using Django, RabbitMQ and Kannel.

- Setting up, managing and administering Moodle – an open source learning management platform
- Providing support and training for Moodle
- Developing Sadhan – A Batch Enrolment file generator for Moodle
- Managing Linux servers, httpd, mysqld, nginx, samba, crond, svn, hg
- Co-developed Convogen – A Degree Certificate generator and printer for the Symbiosis International University

TEACHING EXPERIENCE

”Basics of Operating Systems with a focus on Linux”

Pune, India

Nov 2015 - Present

Every Weekend

- Motivate and bring in students towards using, understanding and contributing to Free/Open Source Software.
- Enrollment of 45 students from Jayawant Shikshan Prasarak Mandali
- Voluntary, part-time and non-paying initiative undertaken as part of an Industry-oriented improvement program for the college’s students with 2 friends who run a startup.

“Python Basics” and “Introduction to Django web framework”

Pune, India

Dec 2013

An unofficial series of lectures conducted outside the college premises for the students of MSc(Computer Applications) - 2012 batch at Symbiosis Institute of Computer Studies and Research.

A Faculty Development Programme on Moodle

SICSR/Pune University, Pune, India

Jan 24, 2010

- A 3-hour hands-on training workshop on Moodle for India-wide faculty under the *Faculty Development Programme* at Pune University, co-conducted along with Prof. Harshad Gune, SICSR.
- I covered the installation and basic usage of Moodle for how to plan sessions, upload resources, accept assignments submissions and create question bank and quizzes on Moodle while he talked about Free/Open Source Software and how to use Moodle extensively for enhancing existing learning environments and providing blended learning.

Basics of Moodle for Teachers

SICSR, Pune, India

April 2009

- A two-day training session for the professors at Symbiosis Institute of Computer Studies and Research about using Moodle - an open source learning platform.
- It consisted of basic usage of Moodle for planning sessions, uploading resources, accepting assignments and creating question bank and conducting quizzes.

PART-TIME EXPERIENCE

Bhaskaracharya Pratishtana

System and Network Administrator

Feb 2010 - March 2010

Pune, India

- Providing support and maintenance services to the FOSS-based IT infrastructure at this educational and research institute working in the field Mathematics.

Sparken IT Solution Private Limited, Pune

System and Network Administrator

May 2009 - March 2010

Pune, India

- Setup the complete IT infrastructure for the company from ground up.
- Setting up Linux/Windows-Apache-MySQL-PHP development environment on dev machines
- Setting up a testing environment using httpd
- Setting up a Samba-based file sharing environment

PSystems IT Services Private Limited

System Administrator

Jan 2010 - April 2010

Pune, India

- Setting up a hybrid Windows-Linux environment with a Samba server as Primary Domain Controller integrated with OpenLDAP as directory server

Software Development & Research Labs at SICSR, Pune

Developer & System Support provider

June 2010 - Nov 2011

Pune, India

- Co-developed LaResume-X – a campus placement management system for SICSR - <http://git.io/veiKA>
- Co-developed ChangeAgent – a feedback management system for SICSR - <http://git.io/veirH>
- Managed httpd, mysql, udpcast, nginx, redmine servers

Software Development & Research Labs at SICSR, Pune

Member

Oct 2006 - Dec 2008

Pune, India

- Managing httpd, samba, mysqld servers and apt-mirror for SICSR
- Development and maintenance of college website
- Development of the Online Admission Processing Module in PHP
- Development and maintenance of SICSR Intranet portal in PHP
- Implementing and Maintaining Google Apps for SICSR as a part of 'Google Appitude' Challenge.
- Organised 'Troubleshooting Day' - an event aimed at troubleshooting the personal laptop of students who walk in.
- Organised 'Meet Ubuntu' - a workshop to help people install Ubuntu Linux on their laptops and start using it.

TALKS

“Managing machines with Puppet and SaltStack”

BlazeClan, Pune, India

Sept 12, 2015

- An introductory talk on Managing machines with Puppet and SaltStack delivered as part of the Tech Talk series at [BlazeClan, Pune](#)
- Deck and demo material available at <https://git.io/vVE87>

“udpcast – setting up a lab en-masse”

GNUunify, Pune, India

Feb 11, 2012

- A talk demonstrating the usage [udpcast tool](#) for setting up entire computer labs in one-go.
- The talk was delivered at [GNUunify](#), an annual international conference on Free/Open Source Software organised in Pune.
- Talk-text at <http://git.io/vf5jW>

A demo on Moodle

Bhaskaracharya Pratishthana, Pune, India

Jan 18, 2011

- A live-streamed demo on using [Moodle](#) - an open source learning platform.
- The talk was co-delivered with Prof. Harshad Gune, Symbiosis Institute of Computer Studies and Research(SICSR).
- It was delivered as a part of the project “*Use of Open Source Software for Teaching Maths*” sponsored by the Ministry of Human Resource Development, Government of India, at Bhaskaracharya Pratishthana - an institute dedicated to education and research in Mathematics.
- Details at <http://goo.gl/aMHAJb>

Moodle – an open source learning platform

GNUunify, Pune, India

Feb 2011 & Feb 2010

- A talk introducing Moodle covering setup, basic usage and how to incorporate Moodle into existing learning environments for providing blended learning.
- The talk was co-delivered with Prof. Harshad Gune, SICSR for two years of the conference in 2010 and 2011

WORKSHOPS

“Creating HPC facilities using clusters and their research avenues”

Allana Institute of Management Sciences, Pune, India

July 31, 2010

- This workshop conducted under the aegis of *Computer Society of India* covered the setup of a cluster using the **Rocks Cluster Distribution** and demonstrated it’s usage for various purposes including a DRDO-sponsored project and extensive mathematical computations. The workshop was co-conducted with Prof.Haridas Acharya and Prof.Rajashree Jain, SICSR along with a team of 6 students.

“Tweaking Ubuntu”

GNUunify

Feb 2009

- This hands-on workshop co-conducted with [Ebenezer Larya](#), covered various tips and tricks to tweak a Ubuntu box for performance and usage.

ACADEMIC PROJECTS

Shadow/Giraffe – A network distributed screen saver

Masters, 2012

- A screen saver which works on machines in the same network in a distributed manner. It makes it seem as if all the monitors are connected to a single machine and the balls are simply jumping from one to another screen. Co-developed in Python.

APPy – A Person in Python

Bachelors, 2009

- Like a dumb actor in the dumb charades game, this game enacts graphically(without sound) or displays the verbose text which highly HINTS the movie title (but does not contain it in anyway), making the user guess it. The program uses an actor (a stick figure) – intelligent agent – which acts in graphical mode and prints sentences in verbose/command-line mode. Co-developed and hosted at <http://dumb-charades-ai.googlecode.com/>

hamraDownloader

Bachelors, 2009

- A web crawler written in Java which would crawl and download all the files in a given website. Co-developed and source code hosted at <http://git.io/veP99>

EDUCATION

Symbiosis International University

Master of Science (Computer Applications)
CGPA: 2.695 out of 4.0

April 2012

Bachelor of Computer Applications
Score: 70.265%

Oct 2009

TECHNICAL PROFICIENCY

Programming Languages	Python, PHP, bash
Frameworks	Django, Flask, RapidSMS
Operating Systems	Linux (Debian and Red Hat based distributions), Windows (XP and 98)
Databases	MySQL
Software	Apache, Nagios, Puppet, Jenkins, Vagrant, RabbitMQ, Samba, git, nginx
GitHub	https://github.com/knightsamar

LANGUAGE SKILLS

Full proficiency	English (TOEFL iBT: 104, IELTS (General): 8.0 band)
Native Proficiency	Hindi & Marathi