

Nandaja Varma **Nandakumar**

SOFTWARE ENGINEER ·

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About me

Engineer with 2+ years of professional experience.

An open source contributor and a Python hacker with a keen eye for automation & deployment tools and a flair for Natural Language Processing. Bold enough to try out and master different technologies that's right for the job.

Uses C to write distributed systems, Python to automate tasks, write APIs, write web applications, and everything else under the sun.

Education

NSS College of Engineering (affiliated to the University of Calicut)

Palakkad, India

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING

Mar. 2010 - April 2014

- Passed out with a First class Bachelor's degree with a GPA of 7.9 out of 10(79%).
- Presided the Computer Science organization in the college called Abacus for 2 years and organized numerous events and workshops in the college for the students and tutors alike.

Technical Skills

OPERATING SYSTEMS

- GNU/Linux (Fedora, Debian and its derivatives, Arch Linux, & similar Linus distros)

LANGUAGES KNOWN

- Python, C, Ruby, C++, Go(Basics), HTML/CSS/Javascript(working knowledge), Java(basics)

DEVELOPMENT TOOLS

- Git, Bash, Zsh, Quilt, Fontforge

SOFTWARE PACKAGES

- Docker, Ansible, OpenStack, MediaWiki, MySQL, Harfbuzz, LaTeX, Gimp, Kubernetes, scrapy, Twisted

FRAMEWORKS

- Ruby on Rails, Wordpress, Flask, Hadoop

Experience

PeARS

Remote

CORE DEVELOPER

July 2016 - Present

- PeARS(<http://pearsearch.org>) is a free and open source, distributed, and lightweight search engine using distributional semantics technique.
- The project has been funded so far by the University of Cambridge and the Mozilla foundation.
- I look after the development of the major components in the search engine, like the distributed hash table, locality sensitive search, efficiently finding the semantics representation of the web pages, etc.
- Code can be found here: <http://github.com/PeARSearch>

Red Hat Inc.

Bangalore, India

ASSOCIATE SOFTWARE ENGINEER(PYTHON, C)

January 2015 - June 2016

- Implemented numerous Ansible modules to setup the GlusterFS on-demand container provisioning project Aplo for Docker, Kubernetes, Heketi, etc.
- Implemented a deployment automation tool for distributed file system GlusterFS using Ansible. Tool is completely written in Python.
- Co-developed a new logging framework for GlusterFS. Coding was done entirely in C.
- Improved the automated development workflow of GlusterFS using hooks of Bugzilla, Gerrit, Jenkins, etc.

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RUBY ON RAILS SOFTWARE DEVELOPER

Bangalore, India

May. 2014 - Dec. 2014

- Implemented many enhancement features like survey, pools, etc. to the community engagement platform EngagementHQ for Australian, New Zealand, and Canadian Govt.
- Worked with the customer support team to fix core product issues by meeting SLAs
- Upgraded V2 version of Engagement HQ from Ruby on Rails 3.8 to Ruby on Rails 4.0
- Coordinated numerous meet-ups of different open source communities.

Google Summer of Code

STUDENT DEVELOPER

Remote

June 2013 - September 2013

- Successfully completed the Google Summer of Code project under the organization Swathanthra Malayalam Computing in the domain Natural Language Processing
- Implemented a framework in Python to automatically test the fonts rendered by engines like Harfbuzz, Pango, etc.

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SOFTWARE DEVELOPER INTERN

Bangalore, India

April 2013 - May 2013

- Helped in internationalizing(i18n) the Ruby on Rails application.
- Helped rewrite the automated deployments of the Ruby on Rails app using Capistrano, Passenger, etc.
- Helped in making the code base better with numerous bug fixes.

Projects & Open Source Contributions

Gdeploy

CORE DEVELOPER

Bangalore, India

Dec. 2015 - March. 2016

- Developed a tool to set-up and deploy GlusterFS using ansible over multiple hosts.
- Wrote and maintain numerous Ansible modules for the upstream Ansible repository.
- <https://github.com/gluster/gdeploy/>

Automated Rendering Testing

MAIN DEVELOPER

Remote

Jun. 2013 - Sep. 2013

- As a part of the Google Summer of Code project, wrote a tool to test the rendering of fonts by engine in Python for the organization Swathanthra Malayalam Computing.
- The tool is heavily being used to font developers and designers for testing their work automatically.
- github: <https://github.com/smc/Automated-Rendering-Testing>

Programmatic creation of PDF books from HTML pages for non-latin scripts

DEVELOPER

Palakkad, India

Jan. 2014 - Mar. 2014

- A Python project to implement PDF exports of HTML content like wiki pages for non-latin scripts like all Indic languages, Arabic etc. This was submitted as the 8th Semester project in college

Debian Diaspora Packaging Project

PACKAGE MAINTAINER

Remote

Jan. 2013 - Mar. 2013

- Involved in the project to package Diaspora distributed social networking site for Debian and its derivative Linux distributions.
- This involved writing tools and other utilities to package more than 500 Rubygems.

Offline wikipedia reader using Hadoop

DEVELOPER

Palakkad, India

Mar. 2013 - May. 2013

- A search on wikimedia dump using Hadoop's Map Reduce and HDFS functionalities. Submitted as 6th semester project in college

Malayalam Wikisource(Grandhasala)

MEMBER

Remote

2013

- Wiki source is the free online library where anyone can contribute.
- Helped in digitizing couple of Malayalam classics.

Gnome

LOCALIZATION TEAM MEMBER

Remote

2013

- Minor involvements with localization projects in my mother tongue Malayalam
- links: <https://l10n.gnome.org/users/nandaja>

Training & Certification

- 2014: Linux Foundation System Administration Training Online
- 2013: Red Hat Certified System Administration course(RHCSA) Bangalore, India

Other Achievements & Awards

Google Women Techmaker India

WINNER

2014

- Was one among the 10 winners of Women Techmaker award given away by Google in the year 2014

Linux Foundation Training Scholarship

WINNER

2013

- Won the Linux Foundation Training Scholarship awarded only to 5 people around the world under the category System Administration WhizKid

Red Hat Scholarship

WINNER

2014

- Won a scholarship from Red Hat, where I was completely sponsored to attend the RHCSA training

Presentations & Talks

College of Engineering, Munnar

Munnar, India

OPEN SOURCE CONTRIBUTIONS - WHAT AND HOW?

August 2014

- Presented a talk on scopes and opportunities for engineering student in open source communities

Seminar, NSS College of Engineering

Palakkad, India

DETERMINISTIC PARALLEL PROGRAMMING WITH HASKELL

March 2014

- Presented a seminar that covered basics of functional programming, Haskell and Deterministic parallel programming using it

SMC 12th year event, Sahithya Academy hall

Thrissur, India

UNICODE FONTS AND IT'S TESTING

Oct. 2013

- Presented a talk on Unicode fonts and it's testing using automated rendering testing tool

Devcon - 2013, Model Engineering College

Ernakulam, India

INTRODUCTION TO OPEN SOURCE CONTRIBUTIONS

Oct. 2013

- Presented a talk on open source contributions

PMG HSS, Palakkad

Palakkad, India

SWATHANTHRA MALAYALAM COMPUTING - AN INTRODUCTION

Sep. 2013

- Presented an introductory talk about the organization Swathanthra Malayalam Computing

Women's polytechnic college, Payyannur

Payyannur, India

FREE AND OPEN SOURCE SOFTWARE - AN INTRODUCTION

Sep. 2013

- Presented an introductory talk on FOSS and open source contributions

FOSSMeet NIT Calicut

Calicut, India

RUBYGEM PACKAGING FOR DEBIAN

Feb. 2013

- Presented an introductory talk on packaging Rubygems for Debian at FOSSMeet in NITCalicut

Interests & Hobbies

- Mixed Martial Arts fighter. Takes training in Kick Boxing, Brazilian Jiu Jitsu and Wrestling
- Hobby Cyclist
- Fan of books on fiction (sci-fi mainly) and fantasy
- Free software, Open knowledge and Online privacy evangelist