

Bollapragada Naga Ratna Kumar

To apply the existing abilities skills upto the fullest satisfaction of the authorities that will allow myself to take full advantage of my passion and experience in software engineering computer science and evolve along with the organization.

Professional Qualification

2009–2013 **B.Tech - Computer Science**, Pydah College of Engineering and Technology, Visakhapatnam affiliated to JNTU Kakinada, .

Professional Summary

- Overall 5+ years of industrial rich IT experience in various domains and technologies..
- 3+ years working in Astronomy Domain developing tools and software integration.
- Experience in Server administration, Documentation and automation of tasks.
- Configured Customized cluster for processing Astronomical Data and generating Images using SPAM(Source Peeling and Atmospheric Modeling).
- Involved in the promotion of Free and Open Source Software and participated conferences and workshops on various computing topics across India.

Systems Skills

- Developing Astronomical Image Processing pipelines and utilities, along with Unix and Python scripts to integrate the various astronomy tools and software .
- Experience in AIPS (Astronomical Image Processing System) and Python Astronomy Libraries (astropy.io, scipy, PyBDSF)
- Experience in dealing with LTA (Long Term Archive) and FITS (Flexible Image Transport System)
- Installation and configuration of Linux operating systems like CentOS, Red Hat, Debian, Ubuntu, Fedora with dual booting.
- Managing groups and user accounts assigned permissions to users using LDAP.
- Disk Management and partitioning in Linux Systems.
- Configuring and implementing Web servers Apache, Tomcat, Glassfish and Zope.
- Configuring and implementing of version control like Subversion, Git and integrating with Bug Tracking System (Trac) and Apache webserver.
- Automating the repeated processes using Shell Scripts and Python and configuring with Cron jobs for taking automated backups of the system.
- Working with admin tools like webmin, top, ping.
- Installing all the software applications through package manager, repository or source for Linux/Mac.

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Software Skills

Languages :Python Scripting, Basic Java

Scripting Languages :Shell Scripting, PHP

Databases :PostgreSQL, MySQL

WebServer :Apache Tomcat, Apache/httpd, Glassfish

Tools :LaTEX, Libre Office, Trac, vim, PyCharm, WIKI, GIT/SVN

Operating Systems

- o Ubuntu 8.04 onwards
- o RHEL 7.0 , Centos 6.x, 7.0
- o Fedora 18 onwards
- o Mac X Mavericks onwards
- o Windows XP onwards

Open Source Libraries

- o OpenLDAP
- o OpenCV
- o FFMPEG
- o Docker
- o SPAM - Source Peeling and Atmospheric Modeling

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Work Experience

National Centre for Radio Astrophysics – Tata Institute of Fundamental Research, Pune (<http://www.ncra.tifr.res.in>)

September 2015 – till date **Project Engineer, National Centre for Radio Astrophysics – Tata Institute of Fundamental Research, Pune.**

National Centre for Radio Astrophysics – Tata Institute of Fundamental Research (NCRA-TIFR), Pune is a leading centre of research under the umbrella of *Department of Atomic Energy, Government of India*, has an active research program in many areas of Astronomy and Astrophysics. NCRA has built and operates the Giant Metrewave Radio Telescope, which is located near Pune, and is the most powerful radio telescope in the world at low radio frequencies.

Project Description

Development of web applications using Free and OpenSource Software (FOSS) and provide system administration to support GMRT (Giant Meterwave Radio Telescope) observations and analysis. Providing maintenance to NCRA Proposal and Archival Management System.

Responsibilities

- o Developing and supporting web application for **Giant Metrewave Radio Telescope Online Archive - GOA** and **NCRA Proposal Management System** for intake, short listing and Management of various types of Radio Telescope observations at NCRA-TIFR, GMRT, Pune on a reusable framework using Java, J2EE, Hibernate, Python, Shell Scripting and YUI.
- o Developed with the Sky Map using Google maps API to identify the sources which were identified by the Optical telescope with the available sources in GMRT Online Archive.
- o Working with various image processing libraries for **building pipeline of automated creation of JPEG images** from astronomical FITS images and integrating with GMRT Online Archives System for giving a rough idea to astronomers how the source looks like.
- o Working on further developing, maintaining and enhancing the capabilities of existing **NCRA Proposal System** and **GMRT Online archiving** web application.
- o Working on System configuration, administration, automation of various backend processes using Python, Shell Scripting.
- o Providing maintenance of various implemented projects for all NCRA academic and scientific programs running on Linux servers.

Freelancing

- May 2015–Aug 2015 **Freelancer, Visakhapatnam, Bangalore**
- Worked individually for Startup companies Ettikopaka and Anti Bakasur Brigade.
- o Extensively worked on **Java, Android, PHP, MySQL, Python, Shell Scripting, Ajax, JQuery and Bootstrap**.
 - o Worked on Raspberry PI v2 Project - For remotely viewing the drive for a based sports car company.
 - o Developed web applications in FuelPHP, NodeJS and Android for controlling the Raspberry PI remotely.
 - o Designed Developed GUI for PI display using TkInter in Python.
 - o Designed and developed eCommerce website in Wordpress using Woo Commerce for a local handicrafts organization.

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IDEA Bubbles Pvt. Ltd.

- Jan 2015 **Software Engineer**, *Idea Bubbles*, Bangalore
–May 2015 Idea Bubbles provides General Health Software Solutions. The company provides end to end solutions for Doctors, Medicos Nurses. Develops and maintains the Health Care Sectors Web and mobile applications.

Project Description

Worked on further developing and enhancing the capabilities of Idea Bubbles's products on its core, user interface and other aspects and its maintenance.

Responsibilities

- o Extensively worked on **PHP, Android, Parse NoSQL, Amazon Web Services, MySQL, Python, Shell Scripting, Ajax, JQuery and Bootstrap**.
- o Developed the API in Parse PHP SDK for Android app request handling.
- o Designed developed admin management console for a Android based health care app in Laravel PHP framework.
- o Installation and configuring AWS server and deploying the applications.
- o Configuring the Video calls and SMS automatic texts to the clients/mobile app users, using UMS Technologies package.
- o Installing and configuring the Parse No-SQL online backed.

Alternative Analysis and Risk Management Corp Ltd.

- May 2013 **Software Engineer**, *AARM Corp*, Visakhapatnam
–December 2014 Alternative Analysis and Risk Management Pvt. Ltd. is the Subsidiary of Alternative Assets and Risk Management LLC , Boston MA. This company provides the reports for Private Equity management and investment solution. This particular branch in INDIA is the backend data management and report generation management resource.

Project Description

Worked on UNIX scripting and PL/SQL MySQL scripts and Ruby on Rails projects deployment, .

Responsibilities

- o Extensively worked on **Java, MySQL, Shell Scripting**.
- o Worked on implementing the SQL and PL/SQL for generating client reports.
- o Installing and configuration of Ubuntu servers and deploying the companies Ruby on Rails web application.
- o Database syncing and merging, build tools to check the Quality of data in database using UNIX Scripting.
- o Build various tools for office utilities (Salary Management Tool).

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Personal Details

Date of Birth 19-August-1992

Nationality Indian

Gender Male

Passport No. K6571369

Languages English, Hindi, Telugu

Permanent Address Ganesh Nilayam, Taraka Ram Nagar, Behind RTC Complex, Pithapuram, East Godavari, Andhra Pradesh, INDIA

Hobbies Trekking, Driving, Cooking, Electronic Gadgets, Visiting Places, Sci-Fi Movies.

Declaration

All the information furnished above is true to the best of my knowledge and belief.

Place : Pune

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