Praneeth Bodduluri

Interests

- Service architecture
- Deployment automation
- Embedded systems
- Instrumentation

Education

o Masters in physics - 2011 from Indian Institute of Technology, Kanpur.

Positions Held/ Work Experience

July 2017 - Founder/Chief Technical Officer, baseaccount.com.

Present One of the two founders at Base. Base provides modern infrastructure that allows for Banks to open up their customer's accounts directly to FinTechs for deep integration.

March 2014 - Senior Devops and Linux application Engineer, Resin.io.

June 2017 Helped architect and setup systems required for a fast moving microservices oriented developer team. Created automated checks and alarms to ensure reliable operation of infrastructure and deployment workflow. Worked with Yocto to build custom operating systems with docker support for Beaglebone, Intel Edison, Parallella and Raspberry Pi. Involved extensive work with Linux kernel modules to build a customized distro with Docker running on ARM.

April 2011 - Founder/Chief Technical Officer, Buffer Labs.

March 2014 One of the two founders of a bootstrapped embedded systems design firm that worked on creating sensor nodes and mobile accessories. Learnt a great deal about creating embedded platforms by handling all the process' from design, sourcing and development to fabrication of sensor nodes. Involved interfacing with a wide array of sensors and peripherals over SPI/UART/I2C channels and relaying over low power radio links to be received by custom software on a computer for analysis.

- CamBuff DSLR Remote: Created a Bluetooth Low Energy accessory for DSLR control with iOS devices. Involved designing and manufacturing a dongle that had a USB host and Bluetooth 4.0 chipset (https://bufferlabs.in/cambuff)
- 2.4GHz wireless sensor nodes: Developed low power 2.4GHz, 2Mbps wireless accelerometers, gyroscope, displacement sensor and strain gauge that synced with a base station, primarily for use in machine monitoring.
- Pedal position and wheel speed sensors: Developed a Hall sensor based system for measurement of pedal position and wheel speed in automobiles. This system used a CAN bus link to display data on a custom dashboard.

Jul 2012 – Nov Consultant, AidIQ.

2012 Performed a study on various scaling aspects of Sahana Eden (http://eden.sahanafoundation.org) on Linux by measuring CPU, Memory and IO metrics with simulated load on Amazing EC2.

April 2011 – Oct Core Team Member, Jugnu Nano-satellite project, IIT Kanpur.

2011 Was involved in the Pre-flight tests and integration of IIT Kanpur's nanosatellite Jugnu. Performed thermal cycling and hardware integrity tests along with final placement of the satellite on a launch vehicle.

Dec 2010 – April Consultant, Indian Railways.

2011 Developed a PyQT + Matplotlib application for reading and generating reports from geo-tagged vibration data recorded on a custom embedded system for a pilot project to create an affordable track maintenance system.

Jun 2009 – April Masters Thesis, Department of Physics, IIT Kanpur.

O10 Studied superconductivity in Praseodymium Iridium Boride and Borocarbide. Automated the measurements by interfacing the Chiller and the Ammeter over GPIB with Python.

May 2010 – Member/Developer, Sahana-Eden.

Present Involved in the development of the messaging module for Sahana Eden, an open source Humanitarian Platform. System administrator for various services of the Sahana Software Foundation. (https://sahanafoundation.org)

Feb 2010 – Dec Consultant, Sahana Foundation.

2010 As a System administrator and a Developer, deployed a High Availability Linux server architecture for a food request portal of the World Food Program.

May 2009 – Sept Contract Developer, Google, Google Summer of Code.

2009 Developed a J2ME client and a Python based SMS reciever to collect data for Sahana disaster management system (https://sahanafoundation.org)

Feb 2008 – Aug Consultant, mAmigo Technologies.

2008 Ported uClinux for a Blackfin DSP based custom board and developed Linux kernel modules for PPI based cameras.

April 2007 – July Research Assistant, Technology Mission on Railway Safety, Kanpur.

Was part of a team that developed a triaxial *Inertial Measurement Unit* using an AVR micro-controller, a MEMS based accelerometer and a Zigbee for wireless data logging of acceleration data.

2007 - 2011 System administrator, Students server, Indian Institute of Technology, Kanpur.

Talks and Publications

 \circ SciPy India conference, December 2009

Experimentation with python - Why not do it the FOSS way?

A talk on how to use python for instrumentation.

o 7th International ISCRAM Conference, May 2010

The Sahana Software Foundation response to the 2010 Haiti Earthquake: A New Standard for Free and Open Source Disaster Data Management Systems