PrithviRaj Narendra

Curriculum Vitae

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I'm a geek. I cherish contributing and using Open Source technology. I care about sustainability and conservation of the environment. I am proficient with embedded systems and lean iterative development cycle of designing, prototyping and testing.

Desired Employment

I am looking to join an organization where I am able to use my technical and entrepreneurial skills for social and/or environmental betterment.

Skills

Hardware

PCB Design	GeDA, Eagle, OrCAD, KiCad, Altium	Electronics	Circuit Design	●●●●●
			Digital Design	●●●●○
Hands-On	SMD soldering, analog & digital debugging		Analog Design	●●○○○

Software

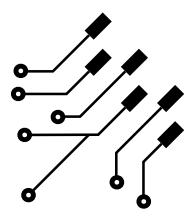|				
Languages	C, Embedded-C	●●●●●	Protocols	BLE, I2C, UART, SPI	●●●●●
	Python, bash scripting, C++	●●●●○		CAN, Ethernet	●●●○○
	HTML, Java, C#, Assembly	●●○○○		USB, 6LowPAN	●●○○○
Tools	Eclipse, GCC, Keil, IAR, Android Studio, Git, Doxygen, LaTeX		Know-how	μC optimized coding, sensor/actuator interfacing, power optimization, algorithm to embedded firmware development	

Experience

Working

Nov 2014 to Apr 2015 — **Firmware Engineer**, *BluVision*, Berlin.
I mainly worked developing firmware for the CC2650 Chip, which drives the Bluetooth Low Energy (BLE) Beacons by BluVision. Specifically, I interfaced a light and motion detection sensors, developed the complete Host Controller Interface (HCI) layer and developed firmwares for customer specific applications. I also developed Android apps to configure beacons and log advertisements. I've got an idea of Design for Manufacturing (DFM) in both hardware and software, with experience in a factory in China. Finally, It was a good experience learning the do's and don'ts when managing a start-up.

Oct 2011 - Jul 2012 — **Research Assistant - Wildlife Researchers' Gadgets Maker**, *Department of Electronic Systems Engineering, Indian Institute of Science*, Bangalore.
Being the project assistant for Dr. André Pittet I was involved in the complete product design cycle of fabricating gadgets such as camera traps and animal collars for wildlife researchers, which had specific requirements such as low cost, ruggedness and weeks of battery life. My tasks included features decision, design, implementation and testing of the enclosure (3D modelling), electronics (PCB schematics, routing and soldering) and software (embedded software, windows PC application, android application).

Academic

Jan 2014 – Sep 2014 — **Master Thesis - Comparison of link layer of BLE and 802.15.4**, *Swedish Institute of Computer Science*, Stockholm.
The objective of my thesis was firstly to port Contiki OS and Bluetooth Low Energy (BLE) Protocol to a SoC platform that supports BLE and secondly to compare various performance criteria such as data rate, latency, and energy consumption with 802.15.4 based MAC layers (ContikiMAC and Null-RDC). A demo of the Contiki port was also showcased.

| Sep 2013 – | **Member, MicroGrid Project 2013**, *Technology Transfer Alliance*, KTH, Stockholm. |
| Jan 2014 | In this project we designed a 2nd generation a MicroGrid network intended to create a local power network in rural and remote regions. This network consisted of a central server managing an efficient MicroGrid of distributed DC-DC converters nodes with CoAP messages. The function of these node units running on Contiki-OS was to keep the voltage steady within the central grid while using heterogeneous power sources such as solar energy, batteries and super-capacitors. |

Projects

Aug 2010 –	**Team Leader**, *Project STUDSAT-2*, Bangalore.
June 2011	STUDSAT-2 is the 2nd generation satellite project by students from many colleges across India. As team leader of STUDSAT-2, I had both technical and management roles. My major tasks included conducting management meets, recruiting students, preparing the project timeline and presenting in various organizations to raise funds for the project. My technical work was focused on the use of Real Time Operating System's (FREE-RTOS) features for satellite applications and developing a prototype of the checkout system. In addition, I led the process of analyzing and selecting the payload and core controller for the satellite and interfacing the on and off chip peripherals.
Feb 2009 –	**Team Member**, *Project STUDSAT-1*, Bangalore.
June 2010	In this project, I developed the electronics and software for the CMOS camera payload for this nano-satellite, using a 0.3 Mega-Pixel Monochrome Kodak sensor to take images of 95 m resolution. I also was part of the team that developed a simple scheduler based Operating System for the satellite.

Education

Sep 2012 –	**Masters in EIT ICT Labs Master School**,
Sep 2014	Major in *Embedded Systems*, Minor in *Innovation and Entrepreneurship*.
	Year 1: *Technische Universiteit Eindhoven*, Eindhoven, Netherlands
	Year 2: *KTH Royal Institute of Technology*, Stockholm, Sweden
Sep 2007 –	**Bachelors in Electronics and Communication**, *RV College of Engineering*, Banglaore.
May 2011	Best Outgoing Student Award from the Electronics & Communication Dept. for the 2007-11 batch.

Additional Experience/Volunteer

Feb 2015 –	**Event Officer**, *EIT ICT Labs Alumni Board*.
Nov 2015	Primary task of facilitating and supporting creation of events by the Alumni and current students.
Sep 2009 –	**Secretary**, *IEEE RVCE Chapter*.
May 2010	Apart from being the secretary, I organized paper presentations and robotics workshops.
	Volunteer/Member, *Miscellaneous groups and organizations*.
	Was secretary at SCIFI, TU Eindhovem for 6 months; volunteered for 8 months at a NGO to help children at a school for visually impaired; organized many events in a student group called 'Geekopreneurs' in KTH for 6 months.

Interests and Hobbies

Playing badminton, following technological updates, watching TED and other talks which makes me ponder, listening to music, reading fiction, watching movies, trekking, and traveling.

Further Info

Citizenship	Indian	Birth	20/09/1989
LinkedIn	linkedin.com/in/prithvirajnarendra	Github	github.com/EarthLord
References	In the LinkedIn page	CouchSurfing	couchsurfing.com/people/ prithvirajnarendra