UMA BALAKRISHNAN

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EDUCATION

University of California, Berkeley	Master of Engineering in Electrical Engineering and Computer Science (Concentration in Robotics and Embedded Systems)	Expected, May 2016
Vellore Institute of Technology (Vellore)	Bachelor of Technology in Electronics and Communications Engineering **GPA- 4.0 [9.03/10 - relative]**	July 2015

TECHNICAL SKILLS

Programming Languages: C, C++, Java, Python, R, Assembly Language, MATLAB, VHDL, HTML/CSS, LabView

RELEVANT ENGINEERING PROJECTS

Master's Capstone Project: Extended Telemonitoring Platform for Marathon Training Application- An android based framework that can be used to track and improve the performance of marathon runners involving sensing, analysis and intervention.

TrashCatch-An autonomous trash can that calculates the trajectory of incoming tossed trash and changes its position to catch it.

FPGA Implementation of Fusion of RGB and Near Infrared Images- Final Year B.Tech project aimed at obtaining an enhanced image by combining near infrared and RGB information. Implemented on a Xilinx FPGA using Vivado Design Suite and Vivado HLS.

'ChArm' Prosthetic Arm- Project involving the design and fabrication of an affordable myoelectrically controlled prosthetic arm with independently movable fingers, opposable thumb and an elbow under the guidance of Professor Ted Moallem from the Harvard-MIT Division of Health Sciences and Technology.

EXPERIENCE

Texas Instruments – *Intern*, Bangalore   May - June 2014
Electronics Company that designs and manufactures semiconductors.

- Worked under the Sr. Technical Manager of Texas Instruments' University Program and learned about the widespread applications of microcontrollers that the company manufactures and markets to technical institutions across the world
- Wrote the code to interface a TIVA microcontroller with the Nokia 5110 LCD using three IDEs - Code Composer Studio, IAR Workbench and Energia.
- Created an experiment manual for the MSP430 microcontroller in both C and Assembly Languages using Code Composer Studio, which included 15 different experiments along with illustrations

Siemens India Ltd, *Intern at the Automation Division***,** Mumbai   May - June 2013
Engineering Company creating technology enabled solutions for a variety of industries and applications

- Worked in the Industry Automation Department at the R&D Centre with programmable logic controllers (PLC) and their associated software such as STEP 7, SIMATIC Manager and WinCC graphics designer
- Designed the graphic sheets for automating the processes in a dairy factory; and linked the graphic sheet to SIMATIC software to complete the simulation of the automation process

Robosapiens Technologies, *Trainee,* Mumbai   May - June 2012
Robotics Company involved in research & development of robotics, educational training and embedded systems

- Assembled the systems for various robots based on existing designs. Used ATMEL's AtMega8 microcontroller and Embedded C Language for controlling different kinds of Robots such as Edge Avoider, Line Follower, Sound Controlled Bot and a DTMF Controlled Bot
- Received an A+ Grade by the company for my work during this internship

Make A Difference– *Education Support Fellow,* Vellore   May 2014 – May 2015
National youth volunteer network providing education and empowerment to underprivileged orphans and institutionalized children

- Oversaw management of the classes and lesson plans, spread career awareness and provide emotional support for 300 children across 3 shelter homes in the city
- Responsible for recruiting and managing around 200 teaching volunteers under the Education Support Program
- Attended Leadership Conference, a platform for young leaders from across the country to come together to share, learn and participate

TEDxVITVellore – *Organizer,* VIT (Vellore)   Oct 2013& Nov 2014
Independently organized TED event at VIT University under the support of TED organization

- Speaker Curator in the organizing team that held the event in Vellore for the very first time and again the following year.