### ARUNDHATHI SWAMI

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**OBJECTIVE:** Obtaining an internship in the field of Embedded Systems as a systems analyst or developer in order to gain an insiders perspective of the industry and further enhance my skill set in accordance to the same.

### **EDUCATIONAL QUALIFICATIONS:**

Bachelor of Engineering Major: Electronics Engineering GPA: 8.57

University of Mumbai, India August 2012-June, 2016

Relevant Courses: Digital Circuits Design, Microprocessors, Microcontrollers, Computer Organization

Professional Masters of Science Major: Embedded Systems Engineering GPA: 3.567

University of Colorado, Boulder

August, 2016-Present

Relevant Courses: Embedded Software Essentials, Embedded Systems Architecture, Sensors and Actuators

### **TECHNICAL SKILLS:**

Programming Languages: C, Assembly Language, MATLAB, Python, Simulink, SQL

Software: Keil MDK, Kinetis Design Studio, ARM Mbed, Visual Studio

Processors: ARM Cortex Mo+ (MKL25Z128), A8 (AM3358), M3 (CY8C5888LTI-LP097), M4 (STM32F401RE), 8051,

ATMega 328P, MSP430G2553

Version Control & Communication protocols: Git, Bitbucket, UART, SPI, I2C

### **PROJECTS:**

## • Electrical Meter Automated Monitoring System:

2015-16

Built a system to automatically monitor and calculate electric usage of residential units, generate and deliver electric bills to residents with no manual intervention with a group of three students.

- Make Files & Build Systems, Peripheral Programming: Embedded Software Essentials, Fall'16 Developed an architecture independent build system on Linux to compile and link self-written programs for standard memmove, ftoa, atoi, itoa etc. functions for ARM Cortex Mo+ and ARM A8.
- Home Automation System: Embedded Software Essentials, Fall'16
   Developed a home automation prototype with drivers for ADC, TMP36 Temperature sensor, LDR and capacitive touch sensor to control specific aspects such as temperature sensing, light sensing and motion triggered lights controlled with a hex-based messaging protocol for control over the integrated prototype.
- Health Monitoring System Embedding Sensors and Actuators, Fall'16
  Programmed the CY8C5888LTI-LP097 (Cortex M<sub>3</sub>) on the PSoC Cypress 5LP dev board to measure heart beats and breaths per minute to build a prototype of a health monitoring system.

# **INTERNSHIPS:**

Bhabha Atomic Research Centre-Mumbai, India || Student Intern for Study Project

December 2014

Undertook a study project for the ISOTOPES Division of BARC with fellow students and studied a basic gamma ray radiation detector.

### **RELEVANT INTERNSHIPS:**

## Times of INDIA, NIE, Student edition, India

Student Reporter, 2006-07

At NIE, learnt basic journalism and reporting skills. Covered school events for the paper. Attended several environmental-conservation related events under their tutelage.

## **RELEVANT EXPERIENCE:**

Uday Magazine- Udayachal High School || Editor

2008-10

Editor of the school's annual magazine for two consecutive years. Responsible for collecting and editing articles, finalizing magazine layouts, selecting and finalizing illustrations, interactions with the faculty for their contributions and overall supervision of the editorial team.

Mirage Online Magazine- ISTE VESIT || Co-Editor, Editor

2014-16

Responsible for selection and editing of articles submitted to the annual magazine, supervising final layout and coordinating with the editorial team for three consecutive years.

### **LEADERSHIP EXPERIENCE:**

Indian Society for Technical Education || **Student Coordinator, Public Relations Officer, Chairperson**Conducted technical and non-technical events for 900 student members while heading a team of 49 members.

Praxis-VESIT, Sponsorship Committee || Core Committee head

2013-15

Responsible for forming financial collaborations with companies for sponsoring intercollegiate technical festival.