

## EDUCATION

### Cornell University

Ithaca, NY

Master's in Electrical and Computer Engineering

expected May 2017

**Coursework:** Database Systems, Embedded Operating Systems, Statistical Computation with SAS, Data-Driven Web Apps (D3.js)

### B.M.S. College of Engineering

Bangalore, India

Bachelor's in Electronics and Instrumentation Engineering, GPA: 4.0/4.0

Sep 2012 – Jun 2016

**Coursework:** Computer Networks, Operating Systems, Graph Theory, Operations Research, Analog Electronic Circuits, Digital Signal Processing, Network Analysis, Project Management

## SKILLS

- **Languages:** Python, C++, C
- **Web:** HTML5, CSS3, Bootstrap, JavaScript, jQuery, AngularJS, PHP
- **Other:** SAS, MySQL, Git, Bash, LabVIEW, MATLAB

## EXPERIENCE

### Robert Bosch GmbH, Bangalore, India

Jan 2016 – Apr 2016

*Intern, Research & Technology Center (RTC-IN)*

Implemented firmware upgrades for AVR microcontrollers and developed a multi-agent system, enabling them to communicate with Philips Hue lights and Bosch sensors.

**Tools:** Python, C, JSON, Linux

## PROJECTS

### Book cart application using AngularJS

A single page application (SPA) to search for books, select them into the cart and buy. Built using AngularJS and Bootstrap.

### Flask based bot controller

A cross platform Raspberry Pi based bot application that can be run from up to ten devices at the same instance over an Ad Hoc network. Built using Python and Flask framework.

### Weather Station CMS

Worked as a full stack developer that included acquiring data from the sensors, uploading them to the server and building a content management system for graphical representation and data analysis. Built using Python, PHP and MySQL.

### Freshwater Quality Management System

Developed a statistical model for predicting the residence time of lakes in Bangalore (India) using the historical data and present parameters e.g. pH, TDS. Built using Python, MATLAB and Linux.

### Optical Theremin based True Random Number Generator

IEEE ICACCI, 2015

Developed an optical version of the Theremin from scratch using a pair of photodiodes, NI myDAQ, NI LabVIEW and utilizing the tune to produce True Random Numbers, further employed in an RSA instance.

### Smart Headphones with ANC + Speech Recognition

IEEE ICSTM, 2015

Developed the algorithm for an Active Noise Cancellation (ANC) headphone that can selectively detect the surroundings in real time and process the information to the user; achieved using NLMS and ALE.

## LEADERSHIP

### ■ Chairman, BMSCE IEEE Student Chapter

Increased membership by 300% during tenure, started Interest Groups in python and AVR architecture.

### ■ Founder & President, BMSCE Pentagonam (Math Society)

Started Pentagonam to promote higher mathematics among students and give them a platform to share their ideas, from both inside and outside the classroom curriculum.

### ■ Teaching Assistant, ECE 2100 & Cornell Eta Kappa Nu (ECE Honor Society)

TA for ECE 2100, Introduction to Circuits. Holding office hours, grading lab reports, homework and exams.

## HONORS

- **The J.N. Tata Endowment Scholarship** for higher education of Indians. (Acceptance rate  $\approx$  1%)
- **ISA Outstanding Section Leader** of the Year (awarded to an individual globally), 2015.
- **Represented IEEE-India Council** at the IEEE R10 (Asia-Pacific) Congress, Sri Lanka, 2015.