Rahul **Sharma**

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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, HTML5/CSS3, JavaScript, PHP

■ Data: SAS, MySQL, MS Excel

■ Other: LabVIEW, MATLAB, Git, LaTeX, Adobe PS

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 Big-Red-Bot

A cross platform Raspberry Pi based bot application that can be run from up to ten devices simultaneously over an Ad Hoc network.

Tools: Python (Flask), JavaScript

The Awesome Weather Station

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.

Tools: Python, MySQL, PHP

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.

Tools: Python, MATLAB, 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. **Tools:** *Python, LabVIEW, NI myDAQ*

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. **Tools:** MATLAB, C

LEADERSHIP

- Teaching Assistant, ECE 2100, Cornell Eta Kappa Nu (ECE Honor Society)
- Chairman, BMSCE IEEE Student Chapter

Increased membership by 300% during tenure. Initiated Special Interest Groups (SIGs) in python and microcontrollers to help students get started with projects.

■ Founder & President, BMSCE Pentagram (Math Society)

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

HONORS

- The J.N. Tata Endowment Scholarship for higher education of Indians. (Acceptance rate ≈ 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.