

Sujith Naapa Ramesh

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY

Expected Dec 2020

Bachelor of Science, Electrical Computer Engineering and Computer Science

GPA: 3.655

Awards: Dean's List (Fall 2017, Spring 2018, Fall 2018), Cornell Tradition Fellow

Littleton High School, Littleton, MA

June 2017

GPA: 4.91, Salutatorian

Awards: National Merit Scholarship Semifinalist, Rensselaer Medal, Juniper Networks Engineering Scholarship, John C. and Eunice B. Morrison Charitable Foundation Scholarship Fund

Relevant Courses: Intro to Microelectronics, Embedded Systems, Digital Logic and Computer Organization, Introduction to Circuits, Signals and Information, Honors Objected-Oriented Programming and Data Structures, Advanced Java Programming, UNIX Tools and Scripting, Discrete Structures, Probability and Inference

RELEVANT EXPERIENCE

Baja SAE Racing Team, Cornell University, Ithaca, NY, *Electronics Subteam Member*

Sep. 2017-Present

- Designed Spark Plug Sensor using an Asymmetrical Inverting Schmitt Trigger to collect engine RPM data
 - Implemented software debouncing using Python scripts to filter out signal noise
- Populated and debugged strain amplification PCBs to examine torque on driveshaft
- Built a simplified data acquisition system by interfacing a Raspberry Pi and off the shelf DAQ device
 - Wrote Bash scripts on Raspberry Pi to communicate with the DAQ over RaspberryPi's built in WiFi network
- Designed an SD card logger that uses an STM32 microcontroller to log data from various analog and digital sensors to a Micro SD Card over SPI bus
 - Used Altium Designer to create the PCB design and wrote and debugged the firmware using an STM32 Discovery Board
- Collaborate with a team of six peers to integrate different testing equipment for competitive off-road racing vehicle

Digital Logic and Computer Organization Class, Cornell University, Ithaca, NY, *Teaching Assistant*

Aug. 2018-Present

- Moderate lab sections for a class of 40 students
- Assist students with their Verilog design projects on Altera FPGA boards
- Hold office hours once a week and grade student assignments

PlumChoice Inc., Lowell, MA, *Software Engineering Intern*

June-Aug. 2017, Jan. 2018, and June-Aug. 2018

- Programmed for Bolt-On Ordering and Sales Tool (BOOST) sales platform for AT&T
- Created pagination using jQuery DataTables and rewrote SQL queries for accurate data retrieval
- Wrote bash and WebLogic Jython scripts on a Linux platform to create an automated deployment system for BOOST sales platform

Cornell Make-A-Thon Finalist, Twitch Does Art

Feb. 2018

- Created a server that polled user input through HTTP requests and interfaced with an ESP8266 WiFi Module
- Designed a robot that was controlled by the ESP8266 and received commands from the server

CNC Machine, Personal Project

Jan.-May 2017

- Built CNC mill that was primarily built using 3D printed and laser cut parts
- 3D-printed and laser cut parts in house in the Littleton High School Makerspace
- Controlled CNC machine by interfacing with an Arduino which was rooted to run Grbl

SPECIALIZED SKILLS

Digital Design: Hardware Architecture/Organization, FPGA, ARM ISA, MIPS ISA, STM32, Arduino

Technologies: Altium Designer, Git, Subversion, STM32CubeMX, Solidworks

Software/OS: C, Python, Verilog, Java, Bash, MATLAB, SQL, Jython, JavaScript, HTML, XML, Linux, Windows

Equipment: Oscilloscope, Logic Analyzer, Soldering, 3D Printing, Laser Cutting, Manual Mill, Manual Lathe