

# Sujith Naapa Ramesh

sn438@cornell.edu, [linkedin.com/in/sujith-naapa-ramesh](https://www.linkedin.com/in/sujith-naapa-ramesh), [sujithnr.com](http://sujithnr.com)

2 Highland Ln  
Littleton, MA 01460  
978-631-9606

## EDUCATION

**Cornell University**, College of Engineering, Ithaca, NY

**Expected May 2021**

Bachelor of Science, Electrical Computer Engineering with Minor in Computer Science (Expected Dec. 2020)

Master of Engineering, Electrical Computer Engineering (Expected May 2021)

GPA: 3.764

Awards: Dean's List (Fall 2017, Spring 2018, Fall 2018, Spring 2019), Cornell Tradition Fellow

**Littleton High School**, Littleton, MA

**June 2017**

GPA: 4.91, Salutatorian

Awards: National Merit Scholarship Semifinalist, Rensselaer Medal

**Relevant Courses:** Advanced Computer Architecture, Advanced Microcontroller Design, Digital Signal and Image Processing, Embedded Operating Systems, Introduction to Computer Networks, Designing with Microcontrollers, Computer Architecture, Operating Systems, Intro to Microelectronics, Embedded Systems, Honors Objected-Oriented Programming and Data Structures, UNIX Tools and Scripting, Probability and Inference

## RELEVANT EXPERIENCE

**Master of Engineering Project**, Delimitrou Group, Cornell University, Ithaca, NY

**Sept. 2020-Present**

- Studied hardware acceleration of microservices on FPGA

**Silicon Labs**, Austin, TX, *Product Test Engineer Intern*

**June-Aug. 2020**

- Created testing procedures for programmable Ultra Low Jitter Crystal Oscillators alongside a team of Product Test Engineers
- Studied the effectiveness of a three-bit coarse trim in controlling process variation on Poly resistors
- Developed firmware to interface with device under test and collect data, used Python scripts to conduct data analysis

**Teaching Assistant**, Cornell University, Ithaca, NY, *Digital Logic and Computer Organization, Introduction to Probability and Inference for Random Signals and Systems, Computer Architecture*

**Aug.-Dec. 2018, Jan.-May 2020, Aug.-Dec. 2020**

- Moderated lab and assisted students with Verilog design projects
- Assisted students with problem sets during weekly office hours and graded student assignments and exams

**Multicore RISC-V Processor**, ECE 4750 Final Project

**Nov.-Dec. 2019**

- Implemented a RISC-V processor using SystemVerilog that can run multithreaded microbenchmarks in C
- Used PyMTL framework to verify and evaluate design

**Cornell Cup Robotics Team**, Cornell University, Ithaca, NY, *Electronics Subteam Member*

**Sep. 2019-Present**

- Worked alongside a team of electrical engineers, mechanical engineers, and programmers to design a lab assistant robot
- Implemented a serial communication system to interface various robot systems with onboard NVIDIA Jetson Nano

**Gerber Technology**, Tolland, CT, *Software Controls Intern*

**June-Aug. 2019**

- Coordinated with a team of electrical and firmware engineers to design software controls for CNC machines
- Prototyped a new electronics system for a CNC spreader that relies on an EtherCAT network to control the machine

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

**Sep. 2017-May 2019**

- Collaborate with a team of six peers to integrate different testing equipment for competitive off-road racing vehicle
- Created an SD card logger that uses an STM32 microcontroller to log data 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

**SquareTrade (PlumChoice Inc.)**, Lowell, MA, *Software Engineering Intern*

**June-Aug. 2017, June-Aug. 2018**

- Created pagination using jQuery DataTables and rewrote SQL queries for AT&T's BOOST sales platform
- Wrote bash and WebLogic Jython scripts on a Linux platform to create an automated deployment system

## SPECIALIZED SKILLS

**Digital Design:** FPGA, PLC, ARM ISA, RISC-V ISA, MIPS ISA, STM32, PIC32, Arduino, Hardware Architecture/Organization

**Technologies:** Altium Designer, TwinCAT 3, Git, Subversion, STM32CubeMX, SolidWorks

**Software/OS:** C/C++, SystemVerilog, Python, Java, Structured Text, Perl, Bash, MATLAB, SQL, XML, Linux, Windows

**Equipment:** IC Tester, Oscilloscope, Logic Analyzer, Soldering, 3D Printing, Laser Cutting

**Culminating Design Exp. Projects:** Pool Shot Simulator, Automatic Segmentation Algorithm, Pinball Machine, Multicore RISC-V Processor