# Pratik Gangwani

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### **Objective**

Searching for an internship for Summer 2016 to utilize and improve my software and hardware engineering skills.

# Georgia Institute of Technology, Atlanta, GA

8/2012 - 5/2016 (anticipated)

• Candidate for Bachelor of Science in Computer Engineering; GPA: 2.80

Georgia Regents University of Augusta, Augusta, GA; GPA: 3.25

(Transfer Credits)

**Programming:** (2+yrs.): Assembly, C, C++, Java, Matlab, Python (~1yr): CSS, HTML, PHP, Scala, Shell, SQL

Experience coding for: Arduino, Android, BeagleBone, MBED micro-controller

Software: Labview, Linux, Mac OSX, Microsoft Office, Sublime Text, Quartus II, Vim, Windows Digital Design: Altera FPGA/DE2 board, Breadboard Prototyping, and State Machine Analysis

Instrumentation: Soldering Iron, myDAO, Oscilloscope, Multi Meter, Logic Analyzer

Languages: English (Native), Hindi (Fluent), French (Basic)

Communication: Presentations, Public Speaking, Technical Reports, and Team Projects

# **Projects and Experience**

Software Engineering Intern, ThyssenKrupp Elevators America, Atlanta, GA

6/2015 - 8/2015

Worked with Raspberry Pi, Python, and various sensors (barometer, accelerometer, gyroscope, ultrasonic) to create a system that collects data while in an elevator for diagnostic and other test purposes.

Mangagaga, personal side project

8/2014 - Present

- Android application written in Java, then ported to Scala
- Open source manga reading app that utilizes LuaJ scripts with regexs to parse URL's and display content

# LC3b Processor: Computer Architecture, Georgia Tech, ECE 3056

- Emulated LC3b ISA and multi-cycle microarchitecture via C
- Programmed (in C) a single core 5 stage pipelined processor and a multi level cache (including DRAM)

#### PandaBot, Georgia Tech, ECE 2031

- Team project to control AmigoBot using IR Remote, had instantaneous response and 3 speed settings
- Programmed Altera FPGA, DE2 board, and IR Receiver via Altera Quartus, VHDL and Assembly
- Used 16 LSB's from the 32-bit IR signal that provide commands are sent into the I/O bus via tri state buffer

# MBED Projects, Georgia Tech, ECE 2036

10/2013

- Assembled a circuit with MBED micro-controller programmed via C++
- Thermostat: heating and cooling options, plus an auto setting to keep temperature between a specific range
- MP3 player: Ability to read files from SD card, along with complete volume and playback controls

### **Awards and Activities**

# **IEEE Hardware Team,** Georgia Tech (3hrs./week)

8/2014 - Present

Head of a 5 person programming team that designed software for Arduino/BeagleBone via C/Python to manage several motors and phototransistors for line following on a robot for IEEE Southeast Con 2015

# ECE Ambassadors (2hrs./week)

1/2013 - Present

- President: Head of a five person team in charge of department tours, events, and advice panels for students
- VP of Tours: In charge of 15 tour guides for planning and execution of tours for prospective students

# One Day Project Chair: Georgia Tech American Red Cross Club (2hrs./week)

8/2012 - Present

- Head of a 15 person team that organizes an annual nationwide blood drive on 9/11
- Raised 778 units in 2013 across 21 schools and ~1000 units across 26 schools in 2014

# Team Leader: ECE GT 1000 (2hrs./week)

Spring 2014, Fall 2014, Fall 2015

- Assisting Professor in planning and giving lectures
- Provide advice to ~25 students in a variety of decisions regarding schoolwork, internships, and etc.

Ronald Mc-Donald House Charities Scholarship: \$1000

2/2012