

# Pratik Gangwani

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## Objective

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Searching for a full time position in Computer Systems and Software.

## Education

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**Georgia Institute of Technology**, Atlanta, GA 8/2012 - 5/2016 (*anticipated*)

- Candidate for Bachelor of Science in Computer Engineering
- Overall Major GPA: 2.84; Fall 2014 – Spring 2015 GPA: 3.15

## Projects and Experience (<https://github.com/Zaydax>)

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**Software Engineering Intern**, ThyssenKrupp Elevators America, Atlanta, GA Summer 2015

- Worked with Raspberry Pi, Python, and various sensors (barometer, accelerometer, gyroscope, ultrasonic) to create a real-time data collection system for diagnostic and other test purposes.
- Main algorithm uses change in atmospheric pressure via the barometer to calculate the current floor and output all collected system data to a CSV file, within a 2 second cycle once the elevator comes to a stop.
- Helped design an Android app to communicate with the Raspberry Pi via Bluetooth to retrieve data files.

**Mangagaga**, personal side project Fall 2014 - Present

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

**LC3b Processor: Computer Architecture**, Georgia Tech, ECE 3056 Fall 2014

- 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 Fall 2013

- 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 Fall 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

## Leadership and Activities

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**IEEE Hardware Team**, Georgia Tech (4hrs./week) Fall 2014 - Spring 2015

- Head of a 4 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) Spring 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

**CEO: One Day Blood Drive Project Inc. (GT Red Cross)** (2hrs./week) Fall 2012 - Present

- Head of a 10 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

- Assist professor in giving lectures and provide advice to ~25 students on how to succeed at Georgia Tech

## Skills

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

- Experience programming for: Arduino, Android, BeagleBone, MBED, Raspberry Pi

**Software:** LabView, Linux, Mac OSX, Microsoft Office, Quartus II, Vim, Windows

**Digital Design:** Breadboard Prototyping, FPGA, and State Machine Analysis

**Instrumentation:** Soldering, Oscilloscope, Multimeter, Logic Analyzer

**Languages:** English (Native), Hindi (Professional working proficiency), French (Elementary)

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