

# ALEX RENDA

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[www.alexrenda.com](http://www.alexrenda.com)

## EDUCATION

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

Bachelor of Science in Computer Science, expected May 2018

### Saratoga High School, Saratoga, CA

Graduated as Salutatorian, June 2014; GPA: 4.639

## WORK EXPERIENCE

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### Tesla Motors, Palo Alto, CA

June 2014 - August 2014

#### System Validation Intern

- wrote a HTML/Javascript/CSS-based user interface for test case management. The tool let engineering managers do complex data analysis and management, and effectively served as a frontend for complex SQL queries
- designed and implemented a Python interface to automatically upload test case results to a server
- developed an Android app to monitor results of automated regression tests

## PROGRAMMING EXPERIENCE

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### Android Development

2012 - Present

Developed and released several Android apps, including:

- an app that parses and synthesizes XML data about a popular video game and displays it in a more understandable graphical format
- a weight and balance calculator for small planes, which helps pilots calculate if their plane is safe to fly with its current weight distribution
- an Android tower defense game

### FIRST Robotics

2010-2014

Vice President and software lead. Worked on projects such as:

- developed manual and autonomous control systems for FRC robots, utilizing PID control loops, machine vision, network communication, etc.
- wrote a Java graphical emulator for my robotics team that let our team test code without a physical robot
- created an interpreter for a scripting language that I authored which let our team rapidly develop autonomous modes iteratively
- wrote a Python tool that aggregated information from various online sources into an Excel file to help our team scout other teams at competitions
- helped with implementation of a Ruby-based parts management server
- held a weekly training session to teach club members to program FRC robots

## SKILLS

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**Programming Languages:** Proficient in Java (including Swing and JavaFX) and Python. Familiar with C, HTML, HTTP, and MySQL

**Relevant Experience:** Android development, REST APIs, autonomous and manual robot control, machine vision

## OTHER ACTIVITIES AND AWARDS

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- *Marching Band* (2010 - 2013): Trombone section leader. The 220+ member high school band performed field shows at home football games and several marching band competitions each year.
- *National Merit Finalist* (2014)
- *LGSUHS D Scholar of Distinction* (2010-2014)