

# RUBEN SANTIAGO MADERA

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(Digital copy)

**SUMMARY:** I am a programmer looking for a Software Engineering or Pentesting internship/co-op. I have a solid background in cloud computing, security, and OO programming.



## EDUCATION

**Rensselaer Polytechnic Institute, School of Computer Science** *Troy, NY*  
Currently Pursuing a **B.S. in Computer Science**, Class of 2017  
Cumulative GPA of 3.62



## TECHNICAL SKILLS



- Proven competency in designing, writing, and using RESTful web APIs.
- Proven competency in Openstack, AWS, and cloud computing/storage services such as Rackspace
- Proven competency with github, version control, and collaborative programming
- Proven competency in object oriented design and languages such as Java, C++, Lua, and Python
- Strong command of low level programming and languages such as x86 (Assembly), MIPS, and C
- Strong command of Unix-like operating systems
- Experience with using gdb, valgrind, Dr.Memory, IDA, and Virtual machines to debug, test, and write secure code

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C++	<div><div></div><div></div><div></div><div></div><div></div></div>
Python	<div><div></div><div></div><div></div><div></div><div></div></div>
Java	<div><div></div><div></div><div></div><div></div><div></div></div>
JavaScript	<div><div></div><div></div><div></div><div></div><div></div></div>
HTML	<div><div></div><div></div><div></div><div></div><div></div></div>
CSS	<div><div></div><div></div><div></div><div></div><div></div></div>
PHP	<div><div></div><div></div><div></div><div></div><div></div></div>
SQL	<div><div></div><div></div><div></div><div></div><div></div></div>



## WORK HISTORY

**/r/internetisbeautiful, an online community with population exceeding 4.5 million users** *Newark, NJ*  
**Founder, Administrator, and lead programmer (2011-present)**

- I manage a community of over 4 million users, along with 40 moderators.
- With a group of web designers, created the UI of the community with heavy use of tools such as CSS and github.
- I am constantly moderating and dissecting groundbreaking new technology.

**Cisco: Cloud Computing Group** *Boston, MA*  
**Software Engineering Intern (Summer of 2015)**

- Demonstrated extensive knowledge of Openstack and cloud computing infrastructure services that deploy Openstack (Rackspace, AWS, CCS cloud...)
- Using the Openstack CLI and API, developed a load-balancing cloud-bursting application to spawn a resource-efficient number of instances.
- Used a custom RESTful API built in Python-Flask to communicate with remote instances.

**RCOS: Rensselaer Center of Open Source** *Troy, NY*  
**Programmer (2014 – present)**

- I contribute and maintain several projects that have been outsourced to/adopted by RCOS. Projects include QuickCast, Pentadactyl, and Openstack.
- Because of how often I pick up incomplete projects, I learned to switch contexts quickly.
- Tools and skills include: Using Github for version control, Linux, Javascript, C++, and Python, and a plethora of obscure frameworks and technologies.

**RPISec: A pentesting/software security team** *Troy, NY*  
**Member (2013 – present)**

- Received training on many malware analysis and modern exploitation practices such as file carving, reverse engineering, and ROP-chaining using dynamic analysis tools such as gdb and static analysis tools such as IDA Pro.
- One of the best undergraduate security teams in the world, matched only by teams such as CMU
- Heuristically gained insight on building safe and secure software.

**ALAC** *Troy, NY*

**Assistant and Learning Advisor (2015)**

- I aid struggling computer science students with their coursework in lower to upper level computer science courses.
- Because everyone has different programming environment preferences, I learned to use many different technologies and IDEs.
- Tools and skills include: Python, C, C++, Java.

**Personal Project: Chess applet (2014)**

- Using Java and Eclipse, I wrote an applet emulating my favorite board game.
- Required extensive knowledge of Polymorphism, Inheritance, and other Object Oriented Programming principles to complete.
- Required extensive knowledge of the heap, mouse and keyboard adapters and listeners in order to allow human to application interaction.
- I've also written a calculator in assembly, an image compressor... take a look at my github profile (@roastmasters) for more of my personal projects!