



# James Gualtieri

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 jamesgualtieri.com

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## Education

### Carnegie Mellon University

Graduation May 2019

Electrical and Computer Engineering  
Software Systems

QPA 3.11

## Programming

 C  C#  C++

 Python  Java  JavaScript

## Relevant Coursework

15-112 Fundamentals of Programming and  
Computer Science  
15-122 Principals of Imperative Computation  
15-462 Computer Graphics  
15-466 Computer Game Programming  
18-213 Introduction to Computer Systems  
18-220 Electronic Devices and Analog Circuits  
18-240 Structure and Design of Digital Systems  
18-290 Signals and Systems  
18-372 Fundamentals of Electric Power Systems  
18-487 Introduction to Computer Security  
21-127 Concepts of Mathematics  
21-259 Calculus in 3D  
11-291 Applied Computational Intelligence  
Lab

## Campus Involvement

Sigma Phi Epsilon Fraternity  
> Booth Chairman (2017)  
> Buggy Head Mechanic (2018)

Orientation Counselor  
1000+ Volunteer

## Experience

### ManTech International Corporation

*Security Research Intern (2018)*

Conducted security research (reverse-engineering and network forensics) against mobile platforms and supporting infrastructure for clients and internal audits. Utilized knowledge of software, operating systems, and computer networks to detect and exploit vulnerabilities. Performed vulnerability research on embedded systems. Created plugins for existing software platforms to aid in research. Tools: Python, C++, bash scripting

### Carnegie Mellon Robotics Institute

*Research Assistant, NavCog Project (2016)*

Supported development and testing of a tool to allow the visually impaired accurately and reliably navigate inside buildings. Performed data collection and analysis to enable accurate localization. Deployed and managed BLE beacons to allow for accurate location services in indoor spaces. Configured server to allow for real-time beacon data collection. Contributed to software development for iPhone app.

Tools: Objective-C, Python, bash, PHP

### Charles River Analytics

*Software Engineering Intern (2017)*

Worked with a team of scientists and engineers to enhance a state-of-the-art user-centered enterprise system based using the Electron Platform. Implement features across a full JavaScript web application stack, with a focus on front-end development. Engaged with users and senior engineers and identify refinements to the legacy products Investigated defects and proposed and implemented enhancements to existing features. Developed software for both web applications and desktop applications.

Tools: JavaScript, React, Node.js, Electron WebGL