James Gualtieri

📱 412-334-5082 ✉️ gualtieri.james@gmail.com

Education

Carnegie Mellon University

Graduation May 2019

Electrical and Computer Engineering
Software Systems

QPA 3.11

Programming

Ⓒ C   Ⓒ C#   Ⓒ C++
🐍 Python   ☕ Java   JS 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
18-487 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 Coporation
Security Research Intern

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
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
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