

SEAN PATRICK CARROLL

18 Hull St, Boston, MA 02113

sean@sean.technology

(978) 806-7758

SUMMARY	Desires to solve complex problems in emerging technology with a passion for Cybersecurity.	
TECHNICAL SKILLS	Assembly, C, C++, Java, JavaScript, Matlab, MEARN stack, Objective-C, Python, Shell Script	
ENGINEERING EXPERIENCE	GPS SDR Simulator	Summer 2017
	Created GPS Satellite Simulator on bladeRF, a Software Defined Radio using Altera FPGA. Developed front-end UI in QT5 and wrote back-end code in C. Conducted test on Femtocells and mobile devices.	
	4G-LTE SDR Cell Scanner	Summer 2017
	Implemented TDD/FDD 4G-LTE basestation scanner on bladeRF (JiaoZianjun/LTE-Cell-Scanner). Monitored and tracked LTE cells on located frequencies. Some SIB ASN1 messages were decoded in PDSCH using Matlab scripts.	
	Protocol Stack	Spring 2017
	Implemented a four-layer reference model (where layer 4 is the top-most application layer and layer 1 is the bottom-most physical layer) for communication between two hosts in C.	
	Litecoin Miner Malware	2013-2018
	Programmed using Delphi 9, miner exploits extra computational power from user's computers. Crypter and stub were designed to thwart detection.	
MARKETING EXPERIENCE	VP of Marketing, Management Information System (MIS) Society	2014-2017
	Villanova Business Society of the Year in 2014 and 2015. MIS is designed to give you an IT understanding integrated with management-level business knowledge.	
	Competitive Effectiveness Challenge	Summer 2015
	Worked in group of 5 that pitched a marketing strategy to Wawa, Inc. for their Summer Hoagie Fest Campaign. Extensive market research was conducted over several months. Wawa out-competes Starbucks in coffee Sales in almost all regions their stores are located.	
EMPLOYMENT	Co-founder, Tagg – Instant Contact Sharing for iOS	2016-2018
	With Tagg, personal information sharing is made simple with the touch of a button. When networking face-to-face, users can swap information by Tagging each other.	
	Software Engineering Intern at Harris Corporation	Summer 2017
	Worked in classified department of Electronic Systems Division. Dealt with security testing of wireless systems, including mobile devices, GPS, and 4G-LTE Data Transmission.	
EDUCATION	Villanova University, College of Engineering	2014-May 2019
	MS, Cybersecurity, GPA: 3.77 BS, Computer Engineering, Minor in Business, GPA: 3.3	
LEADERSHIP VENTURES	Founding Father, ΠΚΦ Fraternity, EO Chapter	2015-Present
	Grew fraternity with a group of friends to the largest and most active fraternity on campus. Continually raise over \$10,000 annually for childhood cancer in partnership with B+ Foundation. Known for our involvement in Villanova Special Olympics and days of community service.	
INDEPENDENT RESEARCH	Accessible via my website sean.technology	
	<i>Trusted Computing: Security Challenges in Intel Trusted Execution Environment, 2018</i>	
	<i>Ethereum Blockchain: Trust Management for Authentication, 2018</i>	
	<i>NotPetya Ransomware: Investigation into its Influence on the Cyber Threat Ecosystem, 2018</i>	
	<i>The Impact of Current Software Vulnerabilities in Large-Scale Networks, 2017</i>	
	<i>Secure Software Testing Methodologies: Code Review & Pen-Testing for Risk Remediation, 2017</i>	