
Collin Reilly Clark <crclark96@gmail.com>

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EDUCATION

Johns Hopkins University

January 2020 - December 2021

Master of Science in Computer Science

- Relevant Courses: UNIX System Development, Embedded Software Design, Reverse Engineering and Vulnerability Analysis, Operating Systems, Secure Software Design

University of Delaware

September 2015 - May 2019

Honors Bachelor of Engineering in Computer Engineering

Minor in Mathematics, Cybersecurity, Computer Science

WORK EXPERIENCE

Whale Shark and Oceanic Research Center

November 2022 - December 2023

Marine Data Analyst and Field Coordinator

- Collected, managed, analyzed, and visualized biological field data on multiple projects including invasive species dissection, coral treatment effectiveness, and marine megafauna population dynamics
- Lectured interns on species identification, marine ecology, and conservation strategies
- Lead teams of scuba divers on field expeditions to collect data and perform conservation efforts

Johns Hopkins University Applied Physics Laboratory

August 2019 - April 2023

Reverse Engineer & Vulnerability Analyst

- Mentored, promoted, and advised staff to assure relevant projects and job satisfaction as an Assistant Section Supervisor
- Independently reverse engineered cryptographic server to determine functionality and discovered multiple implementation weaknesses and OS misconfigurations permitting elevated access
- Wrote dynamic memory tooling and heuristics to trace memory allocations and accesses on Linux processes
 - Applied memory data to reconstruct process type information automatically in Ghidra and IDAPro databases
- Lead small team in researching peer-to-peer protocols of common fileshare applications on the Android platform
- Lead an internal research project studying automating decontainerization of processes on Linux systems
 - Researched runc, docker, and Linux kernel internals
 - Wrote whitepapers and articles to advertise accomplishments to lab leadership and peers
 - Demonstrated research in a series of presentations to garner interest and additional funding
- Wrote proof-of-concepts for iOS kernel exploits as part of a larger software suite to unlock and jailbreak iPhones

University of Delaware EECIS Department

August 2016 - June 2019

Labstaff

- Maintained the university's servers and computer systems for web hosting, data backups, and production
- Managed systems equipped with Graphics Processing Units designed for high performance computation

Golden Egg Labs, LLC

December 2017 - February 2018

Embedded Firmware Engineer

- Reverse engineered custom dental hardware and subcomponents to provide expertise to a team of software engineers
- Developed firmware for TI's MSP430 microcontroller to interface with aforementioned hardware

SKILLS

- C, Python, Java, Bash, x86, ARM assembly, Javascript, Vue.js, Rust, Haskell, SQL
- Experience with IDAPro, Ghidra, Frida, radare2, angr, Docker, Linux, iOS and Android RE
- Technical SCUBA Diver, PADI Divemaster, ScubaPro Technician, Emergency First Response and CPR/AED certified

PROJECTS AND ACCOMPLISHMENTS

- Terra.do Climate Change for Software Engineers Fellow
- JHUAPL Special Achievement Award recipient for outstanding technical contributions
- Johns Hopkins University *summa cum laude*
- University of Delaware *summa cum laude*
- TOP SECRET//SCI active security clearance w/ Agency Special Background Investigation (SBI) and polygraph
- Former Vice President of Eta Kappa Nu Electrical and Computer Engineering Honors Society
- github.com/crclark96/ginh
Open Source maintainer, project has over 100 stars on github