

# Chase Kanipe

(704) 650-8598  
chasekanipe@gmail.com  
chasekanipe.com

**University of Maryland** - Bachelor of Science (2022)  
Computer Science Major, ACES (cybersecurity honors college) Minor, Physics Minor

**Interests** - Reverse engineering, malware analysis, symbolic execution, binary exploitation, hardware reversing

**Certifications** - OSCP (Offensive Security Certified Professional)

## Experience

### **Mantech Cooperation** — Co-op

May 2020 - August 2020

Completed a summer internship involving vulnerability research. ManTech empowers networks and personnel with solutions and training that mitigate cyber attacks.

### **Correct Computation** — Developer

September 2019 - May 2020

Worked on binary analysis tools that generate C-like models of memory flow to statically detect vulnerabilities related to memory allocation in shared object files.

### **Joint Quantum Institute** — Research Assistant

May 2019 - January 2020

Programmed ARTIQ (advanced real-time infrastructure for quantum physics) systems to interface with quantum computing experiments.

### **UMD Autonomous Unmanned Systems Lab** — Research Assistant

June 2018 - August 2018

Developed and analyzed small robotics systems as part of a research lab at the University of Maryland. Worked with other undergraduates, attended conferences.

## Selected Projects

### **Modality (Symbolic Debugger)** — Python

A CLI debugger built on the popular symbolic execution engine angr. Allows one to simultaneously debug multiple branches of a binaries control flow.

### **r2bap** — Python, C++ , Ocaml

A radare2 plugin that integrates the taint analysis capabilities of CMU's BAP. Amongst other things, it can highlight instructions tainted by user selected registers or mallocs.

### **Tiny Disassembler** — Python

A CLI disassembler built on capstone. It can find functions and cross references; allows for both linear and recursive disassembly.

### **Network Scanner** — Python

A nmap-like network scanner written in python. Will detect hosts, open ports, and contains basic service fingerprinting

### **ARTIQ SU-Servo Controller** — Python

Intensity stabilization system developed for ARTIQ (advanced real-time infrastructure for quantum physics) for use in trapped ion quantum computing experiments

## Skills

### **Programming (Fluent)**

C, Python, Java, Racket

### **Programming (Proficient)**

x86, OCaml, Rust, Ruby, HTML, Angular

### **Static Analysis**

Radare2, Ghidra, Capstone

### **Dynamic Analysis**

Radare2, GDB-PEDA, x64dbg

### **Penetration Testing**

Nmap, Wireshark, Burp Suite, Metasploit

### **Symbolic Execution**

Angr

### **Fuzzing**

AFL, Python

### **Static Analysis**

BAP

### **Forensics**

Volatility, Binwalk, Others

### **Graphics**

UE4, Blender 3D, Maya, Blender, GIMP

### **Other**

Github, Lock Picking

## Coursework

408E - Reverse Engineering

408T - Penetration Testing

408L - Digital Forensics

430 - Compilers

414 - Network Security

430 - Compilers