

Chase Kanipe

Double major in Computer Science and Physics at UMD
GPA: 3.4/4.0

University of Maryland
Graduates in 2021
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Experience

The Precision Alliance — *Programming Internship*

June 2017 - August 2017 and June 2015 - August 2015

Backend web development and database design for the sale of over 2750 classifications of telescopic linear guides, rotary bearings, linear actuators and custom systems. Facilitated software setup for laser interferometer.

Southbrook — *Production Internship*

June 2013 - June 2015

Live sound reinforcement (through compressors, limiters, equalization) and automated lighting design over MIDI and DMX. Also learned graphic design in Photoshop, Illustrator, ProPresenter 6, and Final Cut Pro.

Projects

Quantum Key Distribution Simulator — *Programming*

Designed a series of python scripts to simulate attacks on a theoretical type of encryption based on quantum uncertainty in measuring photons

3D Ram Design — *Computer Engineering*

Hand wired 128 bits of static RAM as a prototype for a new stackable design.

Arduino Micro Keystroke Injection — *Cyber Security*

Presented the inadequacies of USB security by using an arduino micro to establish a reverse shell and to recover example computer's passwords

Publications

Security of Quantum Key Distribution — *Research Paper*

(Publication pending) A security analysis of large scale implementations of quantum key distribution systems. Proposed possible vulnerabilities.

Programming

Java, C, Python, x86 assembler, .NET, HTML, CSS, Javascript

Reverse Engineering

Radare2 for reversing and exploitation on x86, x64, ARM

Binaryninja for static analysis

OllyDbg for dynamic analysis

Penetration Testing

Nmap, Wireshark, Burp Suite, Metasploit, Aircrack Suite

Custom python scripts for automation and consolidation

Computer Graphics

Unreal Engine 4, Blender 3D, Unity 5, GIMP, World Machine

Research Tools

Matlab

Artificial Intelligence

Tensorflow, Python Machine Learning

Activities

Cyber security club

Artificial Intelligence Club

Society of Physics Students

Terrapin Record Label