

# Christopher Cerne

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## Education

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### Virginia Tech

2017 - 2021

*B.S. Computer Science, 3.75 GPA*

Graduated in May 2021. Vice President of the Cyber Security Club (2020 - 2021). Webmaster of the VPI Cave Club (2019 - Present). Brother of the Theta Tau professional fraternity.

## Technical Skills

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C, C++, Rust  
x86, ARM, MIPS  
Vulnerability Research

Python2.7, Python3  
Git  
Web Development

Java  
Linux Kernel  
Docker

## Job Experience

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### Bishop Fox

Jan 2022 - Present

*Security Consultant III*

I am currently working as a security consultant at Bishop Fox. I help Fortune 500 companies secure their networks by performing penetration tests and security reviews of internal and external applications.

### Independent Security Work

Jan 2019 - Present

*Security Researcher*

I independently identified and gained recognition for finding vulnerabilities in web applications and embedded devices. I wrote comprehensive bug reports and notified vendors with a 120-day disclosure policy. I am credited to finding [CVE-2020-8797](#), [CVE-2020-8798](#), [CVE-2020-12123](#), [CVE-2020-12124](#), [CVE-2020-12125](#), [CVE-2020-12126](#), and [CVE-2020-12127](#).

### RedLattice

May 2019 - Aug 2020

*Vulnerability Research Intern*

In the first summer, I researched and found security vulnerabilities in various commonplace embedded devices and developed tooling to exploit those vulnerabilities. In the second summer, I gained experience with JavaScript Core and V8 vulnerability research and worked with a team to find high-impact bugs.

### Virginia Tech IT Security Office

Sep 2019 - Dec 2020

*Red Team Researcher*

I evaluated the security of devices on the Virginia Tech Network. I developed tooling to facilitate embedded device research. I found numerous high-impact vulnerabilities, notified impacted departments, and worked with them to mitigate the issue.

## **CS @ Virginia Tech**

**Aug 2020 - May 2021**

*Undergraduate TA for CS3214*

I worked under the Virginia Tech Computer Science Department, fulfilling 10 hours a week as an undergraduate TA, and helped students in one of the most challenging courses in the CS curriculum, Computer Systems. I learned how to isolate bugs in student code and effectively teach systems-level concepts. I became an expert in debugging in GDB and programming in low-level C.

## **Focal Point Technologies**

**Jun 2017 - Aug 2018**

*IT Intern*

In the first summer, I worked on a team to develop a mobile application from scratch. In the second summer, I led a team creating embedded systems to collect data.

## **Leadership, Awards, and Certifications**

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### **Junior Penetration Tester**

**Nov 2021**

*eLearnSecurity*

I passed the well-known eJPT certification exam with a score of 95%.

### **Cyber Security Club @ VT**

**Sep 2020 - May 2021**

*Vice President*

I organized events for the Cyber Security Club at Virginia Tech. I gave interesting technical presentations, including a presentation on attacking embedded devices. I helped the club fundraise by acquiring sponsorships.

### **Andor Assembly Competition**

**Aug 2019**

*Second Place*

I singlehandedly represented Virginia Tech in the University of Nebraska's Andor Assembly Programming Competition. The competition focused on x86, ARM, and RISC assembly.

### **The Smartphone of the Future**

**Apr 2017**

*First Place*

I won \$500 from the Institute of Electrical and Electronics Engineers (IEEE) for developing a prototype of a smartphone with interchangeable parts. I gained experience in embedded device programming and hardware interfaces such as I2C or SPI.

## **Publications**

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### **Security for College Freshmen**

**Aug 2017**

*United States Cybersecurity Magazine*