David Cannan

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Summary

Highly motivated, self-taught professional with a diverse background in woodworking, photography, and small business ownership. Currently shifting career focus towards Information Technology, specifically penetration testing and risk assessment. With a goal of learning from the ground up, I quickly learned the ability to read and write low-level code, as my capabilities grew by developing applications and cloud services for the cyber security community which I publish to the open-source community. I offer a unique amalgamation of experiences, analytical skills, and a robust learning mindset that promises to add value to any cybersecurity team.

Core Competencies

- **My mindset:** I harness a keen sense of critical thinking, allowing me to envision expansive, innovative solutions and tackle complex challenges head-on.
- **Technically:** Fluent in a myriad of tools and languages, including but not limited to Linux command line, BASH, Python, C++, and web technologies such as HTML/CSS and JS. Additionally, I possess hands-on expertise with AWS services, API integrations, and intricate networking constructs like VLAN/VPC.
- **Interpersonal Communication:** My communication style is both a strength and a passion. Anchored in empathy and patience, I ensure conversations are both impactful and insightful. I'm also committed to introspection, constantly refining my viewpoints to foster even more enriching dialogues.
- **Understanding of Human Dynamics:** A near-decade immersion in diverse social engineering techniques has equipped me with a nuanced understanding of human behaviors and their implications in the realm of security.
- **Innate Curiosity & Drive:** My ventures into IoT reverse engineering and OSINT, combined with practical experience in the spheres of software engineering, devops,

and cloud technologies, are a testament to my relentless quest for knowledge and evolution.

Courses & Training

- **Google Courses:**
  - *Foundations of Cyber Security*
  - *Networking and Security*
  - *Automation Cyber Security with Python*
  - *Assets, Threats, and Vulnerabilities*
- **Antisyphon:**
  - *Mitre ATT&CK Course*
- **(ISC)2:**
  - *Assessment Test for Cybersecurity Training*

Projects

- **ESP32 Microcontrollers:**
  - Leveraged the capabilities of ESP32 microcontrollers to design and execute in-home attacks. This hands-on approach allowed me to create and ethically penetrate replicated target environments, further enhancing my skill set in ethical hacking.
- **Cloud Labs:**
  - With the aid of Linode Cloud Computing and various SaaS tools, I've architected and fortified domains, ensuring their resilience. In parallel, I've conducted penetration tests on these servers, gaining invaluable insights into potential vulnerabilities and their mitigation.
- **IoT Hardware Reverse Engineering:**
  - I'm actively engaging in the intricate world of IoT hardware reverse engineering. My current focal points include exploring UART, establishing reliable serial

connections, and thoroughly analyzing data streams to understand the underlying communication patterns.

- **OSINT and Recon:**
  - My endeavors in OSINT and Recon have led to successful identifications of specific *targets of interest*, primarily for family members. Additionally, I've set up self-hosted cloud environments tailor-made for bug bounty hunting and vulnerability scanning, amassing valuable data to contribute to bug bounty initiatives.
- **XSS and Web Application Attacks:**
  - My foray into web application vulnerabilities has yielded fruitful results. I've adeptly exploited certain bounty programs, leveraging JavaScript to embed a service-worker persistently on target sites. This approach has allowed me to capture client data efficiently, directing it to my specialized Node.js attack server.
- **Wi-Fi Data Collection:** Constructed a device using an ESP32, GPS module, and an LCD display on a breadboard, complemented by a Raspberry Pi designed for Wi-Fi hash generation and a WarDriving setup for data acquisition. Leveraged Python, paired with the pandas and networkx libraries, to geographically map and visualize networks.
- **Home Lab Network:**
  - At the heart of my technical explorations lies my home development lab, meticulously constructed using the "Infrastructure as Code" (IaC) approach. This foundation empowers me to swiftly and efficiently deploy instances, tailoring each to the specific requirements of any given scenario. This setup not only enhances my adaptability but also ensures a seamless transition between different testing environments.
- **GitHub Contributions:**
  - My dedication to open-source and collaborative development is evident from my activity on GitHub. In 2023 alone, I've marked a significant achievement by securing an A+ rating, a testament to my active contributions that exceeded a count of 1,000. This engagement underscores my commitment to continuous learning and community-driven development.

Professional & Academic Journey

T&T Caseworks, Douglasville, GA

Head of Lamination/Finisher

May 2021 - Present

CDA Woodworks, Douglasville, GA

Woodworker & Small Business Owner

May 2018 - Present

David Cannan Photography, Douglasville, GA

Photographer & Small Business Owner

August 2017 - Present

Grace Christian Academy, Powder Springs, GA

Primary Janitorial Custodian

2015-2018

Pete Guy Paving, Atlanta, GA

Paver

2012-2013

Chattahoochee Technical College, Marietta, GA

Computer Science and Networking Student

2010 - Incomplete