

EATON ZVEARE



See all my projects, writeups, and software in more detail on my website: eaton-works.com

Experienced C# / .NET Windows desktop developer of more than 15 years with an interest in file systems, reverse-engineering, and security.

Also a part-time beekeeper since 2019. 🐝

Currently based in Sarasota, Florida.

IN THE NEWS

Some of my security disclosures have made front page news:

Responsible disclosure of Honda power equipment / marine / lawn & garden dealer eCommerce platform takeover

- ❖ Publication Date: June 6, 2023
- ❖ The story was widely covered in the media in June 2022 with coverage on The Record, Bleeping Computer, SecurityWeek, The Hacker News, and more.

Responsible disclosure of exploitable Toyota CRM exposing Mexican customer information

- ❖ Publication Date: March 6, 2023
- ❖ The story was widely covered in the media in March 2023 and was a feature story on Automotive News with additional coverage on Jalopnik and more. Also mentioned in a subsequent feature story on Automotive News titled "Auto industry risks security breaches by underpaying white hat hackers".

Responsible disclosure of login/impersonation exploit in Toyota's global supplier management network

- ❖ Publication Date: February 6, 2023
- ❖ The story was widely covered in the media in February 2023 and was a feature story on Automotive News with additional coverage on Autoblog, PortSwigger, Bleeping Computer, and more. Also mentioned in a subsequent feature story on Automotive News titled "Auto industry risks security breaches by underpaying white hat hackers".

Responsible disclosure of Jacuzzi SmartTub network compromise

- ❖ Publication Date: June 20, 2022
- ❖ The story was widely covered in the media in June 2022 with coverage on New York Post, Gizmodo, Motherboard – VICE, TechCrunch, PortSwigger, and more.

SECURITY EXPERIENCE

Microsoft accidentally exposed their private Xbox game developer forums

- ❖ Publication Date: January 31, 2022
- ❖ Blog post detailing a 2015 responsible disclosure to Microsoft regarding inadvertent disclosure of private game developer forum data.

Mercedes-Benz

- ❖ User impersonation and data exfiltration exploits responsibly disclosed to Mercedes-Benz in 2019 and 2021. Received thank-you letter from Mercedes-Benz CISO, Michael Schrank.

REVERSE-ENGINEERING EXPERIENCE

15 years of reverse-engineering the Xbox 360 kernel, security, and system services have led to many interesting projects on the console and beyond.

How the Xbox 360 knows if your hard-drive is genuine

- ❖ Publication Date: January 24, 2023
- ❖ Blog post analyzing how the Xbox 360 enforces hard-drive authentication.

How Microsoft attempted to make the Xbox 360 dashboard load faster

- ❖ Publication Date: January 9, 2023
- ❖ Blog post analyzing how Microsoft improved Xbox 360 dashboard loading speeds.

Extra Large Xbox 360 Internal HDD Storage

- ❖ Publication Date: August 9, 2022
- ❖ Through one last comprehensive kernel patch and custom formatting tool, it is now possible to use up to 16 TB of space on an internal Xbox 360 HDD or SSD.

Extra Large Xbox 360 USB Storage

- ❖ Publication Date: April 6, 2022
- ❖ Through another comprehensive kernel patch and custom formatting tool, it is now possible to use up to 16 TB of space on a single USB storage device connected to an Xbox 360. This project also improves the overall performance of the Xbox 360 USB driver.

Reverse engineering and removing Pokémon GO's certificate pinning

- ❖ Publication date: July 31, 2016
- ❖ An analysis of Pokémon GO on Android's certificate pinning, and removing it to allow HTTPS request inspection.

Large Xbox 360 USB Storage

- ❖ Publication Date: December 27, 2012
- ❖ Back when Microsoft added USB storage support to Xbox 360 consoles, it was only possible to use up to 32 GB of space. Through a comprehensive kernel patch and a custom formatting tool, the 32 GB limit was broken and extended to 2 TB.

SOFTWARE DEVELOPMENT EXPERIENCE

More than 15 years of predominantly C# / .NET Windows desktop development experience have led to the development of many applications. A few notable publicly released applications:

FATXPLORER

- ❖ Developed: 2009 - Present
- ❖ FATXplorer is an Xbox storage device explorer. With it, it is possible to mount any type of Xbox storage natively in Windows through a file system driver. Also featured are formatting tools, recovery tools, and much more. In active development since 2009 and still selling copies worldwide.
- ❖ Thousands of monthly users predominately in the United States and Brazil.
- ❖ Featured in a Callback Technologies case study.

DevTool

- ❖ Developed: 2012 - 2013
- ❖ Once-private Xbox 360 development PC companion. Publicly released July 2015.

WORK HISTORY

Security Researcher at Traceable API Security

- ❖ Timeframe (full-time): November 2023 - Present
- ❖ Timeframe (contractor): April 2023 - November 2023
- ❖ ASPEN team member working on Sonar and various security research projects.

Director of Technology / Developer at Grape Intentions

- ❖ Timeframe: March 2016 - Present
- ❖ Grape Intentions is a wine club that gives a portion of your subscription fee to a charity of your choice. I currently handle day-to-day maintenance, development, security, and general operations for the Grape Intentions website and backend systems.

Owner / Developer at Eaton Works

- ❖ Timeframe: January 2009 - Present
- ❖ Eaton Works is my personal website and blog where I publish my software, security writeups, and more.

Student Worker at WVU Classroom Technologies (CTec)

- ❖ Timeframe: October 2012 - May 2013
- ❖ Offered technical support to WVU faculty over the phone to help diagnose and fix classroom technology-related problems. Also checked select classrooms on a weekly basis to ensure the technology was fully functional and problem-free.

EDUCATION

West Virginia University

- ❖ Studied Computer Science from 2012 - 2014. Chosen as a teaching assistant for 3 semesters (EDP course).

TOOLS, SERVICES, & PROGRAMMING EXPERIENCE

Tools, services, programming languages, and more I am proficient in and have a high level of understanding:

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| ❖ C# / .NET | ❖ EasyPost | ❖ Mailchimp |
| ❖ WinForms | ❖ Google Cloud | ❖ Postmark |
| ❖ Stripe | ❖ Fiddler | ❖ WordPress |
| ❖ Cloudflare | ❖ MySQL | ❖ Microsoft Office |
| ❖ Visual Studio | ❖ Windows Server | ❖ HTML, CSS, & JS |
| ❖ PowerPC Assembly | ❖ Internet Information Services (IIS) | ❖ Tailwind CSS |
| ❖ The Interactive Disassembler (IDA) | | ❖ CBFS Connect |