

Vi Grey

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LANGUAGES AND TECHNOLOGIES

- Go, Python, Bash, Javascript, HTML, CSS, JSON, XML
- Linux, Unix, Windows, CentOS, RHEL, AWS, Unix Permissions, Cron, AngularJS, Node.js, TCP/IP, HTTP, TLS, SSL, Git, SQL, MongoDB, MySQL, \LaTeX

WORK EXPERIENCE

Software Engineer, Technology Researcher, & Speaker

Independent — Rochester, MN/New York, NY

- Created a research lab to actively develop skills and knowledge in technology and technology history
- Set up and taught Cryptography workshops in Minnesota, New Jersey, and New York
- Writes blog articles about technology, security, and information theory
- Gives presentations about projects and research

Software Engineer & Information Security Engineer

Excel Manufacturing — St. Charles, MN

- Developed internal sales and support ticket management application to improve productivity of sales and support teams
- Encrypted database information and hashed passwords with bcrypt to protect against data breaches
- Managed firewall rules and SIEM infrastructure to prevent and detect network and system infiltration attempts
- Set up AWS virtual servers to test application deployment before running those applications in production environments

Systems Administrator & Web Developer

Jon Hassler Theater — Plainview, MN

- Created a web-based boxoffice ticket reservation system to improve work productivity
- Developed and maintained website, increasing page traffic by over 800% and average engagement time by over 500%
- Managed computer systems and networks to keep business operations functioning

Web Developer

Toymaker Television (Tymkrs) — Rochester, MN

- Created a website design for desktop with the security requirements of needing to be static and easily maintainable
- Optimized original website design aspects to reduce loading times by more than 75% and allow for dynamic content size

PRESENTATIONS

- **There's a ZIP File in My NES Cartridge** — DEFCON 201 Technical Meeting — Hoboken, NJ
- **Phishing for Root** — DEFCON 201 Technical Meeting — Hoboken, NJ
- **Fair Results From an Unfair Coin** — NYC Python Lightning Talks — Manhattan, NY
- **Attacking Your Two-Factor Authentication** — K-LUG Technical Meeting — Rochester, MN

PROJECTS

UBAC

- Turing complete programming language and simple computer system that uses only 6 operations for calculations

NESZIP

- Proof of Concept tool that makes an NES ROM that is also a ZIP file that contains a copy of its own source code

Latchbox

- Password manager written in Go that uses a console based user interface

Modem-Tap

- Network middleware audio engine written in Go that emulates a network connection though a Bell103 dial-up modem

Personal BBS

- Online Bulletin Board Service written in Go — `telnet vigrey.com`

3F.py

- Python script that takes 2 different types of files and creates a file that is a functioning version of both files at the same time

Root Phisher

- Proof of concept security research Bash script that pretends to be the sudo password prompt and deletes traces of itself

ignis

- Scripting and templating engine written in Python for generating static websites

rcube

- Python module that solves scrambled Rubik's Cubes

datecalc

- Python module that can calculate the day of the week for any date (Ported to Go, Ruby, and Javascript)

fairflip

- Coin flip simulation program written in Python for getting fair coin flip results from an unfair coin

White Rabbit

- Command line based python tool for time management

COMMUNITY WORKSHOP MEMBERSHIPS

- **DEFCON 201** — Makerspace — Hoboken, NJ
- **The Rabbit Hole** (Tymkrs) — Makerspace — Rochester, MN
- **K-LUG** — Linux User Group — Rochester, MN