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<https://github.com/133794m3r>

## EDUCATION

### Mountain Empire Community

May 2021

Associates of Applied Sciences: Computer Software Specialist; Associates of Applied Sciences Nursing; Cybersecurity Work Certificate.

### Academic Honors/ Achievements:

Presidents List: SP19; Merit List: SU19, FA19; Honor's List SP20

## CERTIFICATIONS

Security+: 34250C2EZC41QKW9

Sep 2019

## EXPERIENCE

### Mountain Empire Community College | Big Stone Gap, VA

Sep 2019 - May 31<sup>st</sup> 2020

#### Cybersecurity Lab Specialist

- Created a NetLab course Module utilizing VMWare ESX server software.
- Helped teach some concepts in ITN-171 Unix, ITN-261, ITP-270
- Created the practical component of the final for ITN-262 (Computer Forensics/C|HFI course)
- Wrote a paper on the RSA Cryptosystem including practical attacks for ITN-260/261's practical components.
- Fox and the Hound custom Linux Challenge Series.
  - o Teaches BASH scripting, Grep, Sed, Awk, RegEx, Scripting, CLI, Common Unix Administrative Tasks, "Hyper-piplining", Unix Pipes, Streams
  - o Total of 18 challenges, targeted towards NSA KUs and VCCS Guidelines.
  - o All labs are programmatically generated and are verified by a solver script.
  - o Utilizes BASH, GNU Coreutils, AWK, RegEx, Sed, Grep, PASTE, Cron, C, Tar, Git, ViM, Nano, DASH
  - o 3K SLOC of BASH (excluding comments/blank lines)

### Freelance Software Engineer & DBA | Nickelsville, VA

September 2008-June 2010; May 2015 – 2018

- Optimized User Experience for BBRPG (2009)
  - o Converted database from MyISAM to InnoDB and optimized queries, moved from Apache to Nginx
  - o Converted UI layer to utilize AJAX
- Created a constant video feed that was sent to Client's site
  - o Wrote BASH scripts to fetch the JPEG stills from the webcam and combine into MJPEG

## PERSONAL PROJECTS

### Django AutoCTF

- Python(Django, SymPy), CSS3(Bootstrap), JavaScript(jQuery,Bootstrap), PostgreSQL, Nginx
- Site is mobile responsive, users are rate-limited and flags are generated programmatically.
- Challenge types are Programming, RSA(Hastad Broadcast, Common Mod, Fermat), Hill Cipher, Affine Cipher.

- See it live at <https://crimsonstrife.com> | Github Repo: [https://github.com/133794m3r/django\\_autoctf](https://github.com/133794m3r/django_autoctf)

## OpenCTF

- Consists of a series of programatically generated CTF Flags
- Categories: Python, BASH, C, Pwn, Reverse Engineering, Forensic Analysis, Programming, Crypto, Stegonagoprhy
- All challenge generators are wrote in either BASH or Python.
- Currently at ~3.7K SLOC
- Currently being utilized by MECC's CTFd instance with the flags being static for the time being until the API is done by our replacement CTF system from VACR.

## LEADERSHIP

- Mountain Empire CTF Club Team Leader.
- Same Home Different Hacks – Team Leader/Operations Head
- New Hack Who This – Team Leader/Operations Head

## AFFILIATIONS

### Mountain Empire CTF Club

Oct 2019 - Present

*Founding Member/Team captain*

### Student Success Committee at MECC

Sep 2020 – Present

Student Diplomat

## AWARDS

1<sup>st</sup> Place at BsidessWVA 2019.

43<sup>rd</sup> place at DTCCTF: 1 person team during the event.

6<sup>th</sup> place at HackerHarvest CTF during Cyber Carnival

MetaCTF 92<sup>nd</sup> out of 1,017 Studen Teams, and 147<sup>nd</sup> out of 1,587 Teams

NCL 2020 Spring Season Individual Game: Ranked 57<sup>th</sup> out of 5,377 Players. Team Game: Our 2-person team was ranked 104<sup>th</sup> out of 931 teams overall.

NCL 2020 Fall Season Individual Game: 133<sup>rd</sup> out of 6,011 players. Team Game: 2 Same 2 person team ranked 75<sup>th</sup> out of 957 teams overall.

## SKILLS

Programming Languages: Python(Django, Flask, SymPy), CSS3(bootstrap), HTML, JavaScript(Bootstrap/jQuery), PHP, SQL(MySQL, PostgreSQL), Shell Scripting(BASH, DASH, SH, ShellCheck), C.

I have skills in Programming,Project Design, Project Management, Leadership, Linux Administration, Git, Hashcat, Ethical Hacking, WireShark,VIM, Nursing, Therapeutic Communication, Health Assessments, and Technical Communication.

## References

Additional References available upon request.