

## Experience

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### Mandiant

Secure Software Engineering Intern

Reston, VA – Remote

May 2021 - Aug 2021

- Delivered 2 Go servers for a modular distributed system focussed on security validation and red team engagements
- Developed Python automation tools for module integration saving analysts approximately 6 hours weekly
- Attended international client meetings, learning how to synthesize feedback into an Agile SDLC

### Dell Technologies

Software Engineering Intern

Austin, TX – Remote

May 2020 - Aug 2020

- Generated a new feature extraction method which minimized around 90% of required training data, while maintaining  $f$ -score, by implementing surrogate modeling, similar to an approach later presented at ICML 2020
- Maximized model  $f$ -score to 0.98 by utilizing explainable AI frameworks for random forest, gradient boosted tree models, while delivering an easy-to-understand documentation repository

### Texas A&M Computer Science

Peer Teacher

College Station, TX

Feb 2020 - May 2021

- Delivered interactive programming files which save PTs 1-3 hours per shift by covering common learning cases
- Contributed to edge-case coverage of a Discord student-queue, optimizing PT shifts by 1-2 students per session

ACELab Undergraduate Research Assistant

Aug 2019 - Jan 2020

- Optimized data preprocessing methods for machine learning biometric monitoring systems to aid Veterans with PTSD

## Projects

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**MITRE eCTF (2021)** *Team Lead for secure messaging platform on embedded devices using C, Rust, Python with Docker emulation*

- Achieved 2nd place nationwide, scoring special category points, for a platform scaling to  $2^{16}$  embedded devices
- 3 month CTF including system design/development, and attack phase tasking teams with exploiting other designs

**Exability (2021)** *Diet and exercise webapp supporting disabled users and dietary allergies, designed in Figma, and built from scratch*

- Includes Spotify, weather, user profiles and recommender system for daily calories, exercises and recipes
- Deployed on AWS using HTML5/CSS, JavaScript, API Gateway, Lambda, DynamoDB and other third-party APIs

**Bokehbox (2021)** *Personal website for experimenting with modern design and deployment paradigms built with React*

- Platform for showcasing photography and tech portfolio along with professional profiles deployed on AWS

**MindSplice (2019)** *Multiplayer puzzle game where users must cooperate to solve challenges before facing off in a battle royale*

- 48 hour video game hackathon project in Unity Engine, delivered player scripting, level design and music

**Datathon (2019)** *Implementation of A\* shortest path for Black Friday shopping, predicting oil-drilling failures with XGBoost*

- Top ten finish, succeeding at two challenges in 24-hour data science oriented hackathon

## Education

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Texas A&M University, College Station, Texas

May 2022

Bachelor of Science in Computer Science

3.70 GPA

- Cybersecurity Minor, Dean's Honor Roll, Machine Learning, Operating Systems, Network Security

## Skills

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**Programming Languages:** C++, Python, Go, Rust, C, SQL, NoSQL, JavaScript, Node.js, Bash

**Tools and Technologies:** Git, REST APIs, AWS, Docker, React.js, Node.js, HTML/CSS, XGBoost, OpenCV, TensorFlow, PyTorch

**Activities and Experience:** Challenium, Facebook Datathon, Robomasters, Student Disability Services Volunteer