Addy Moran

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Programming isn't about what you know; it's about what you can figure out. — Chris Pine

Education

- Bachelor's in Science, Colorado State University, Major in Computer Science and a Minor in Mathematics, May 2018

Tool Suite

- Security Clearance: Secret Interim
- Programming Languages: Java, Python, C/C++, Unix, LaTex, UML, SQL, HTML/CSS, JavaScript, SQL

- Full Stack Web Development
  - Python: Flask, CherryPy
  - JavaScript: Node.JS, ExpressJS
  - Front End Frameworks: Bootstrap, Materialize
- Procedures: Scrum, Agile, and Test Driven Devleopment
- Virtualization Tools: VirtualBox, VMWare, CypherPath
- DevOps: Docker
- Version Control: Git
- Team Communication Tools: Slack, Trello, Skype

Work Experience

- Raytheon
  - Cyber Threat Analyst, June 2019 - Current
    - Proactively search for cyber attacks and gaps in security measures by leading hunts, acting as a Threat Hunting SME, and by developing training
    - Built training material for new threat hunters
  - Software Engineer, May 2018 - June 2019
    - Lead an 8 month, 175K, research project, building a digital forensics tool for use in embedded communication protocols. I focused on building documentation, presenting to leadership, tasking a team of four and designing and implementing the user interface (Flask and Node.JS). This solution received a provisional patent.
    - Designed and prototyped a satellite data reduction algorithm that finds interesting patterns within TLE data
    - Participated in a cyber rotation program (was one of the engineers chosen from Raytheon's four business units)
    - Training
      - Built and taught MIL-STD-1553B and MIL-STD-1760 curriculum for an internal embedded security course.
      - Built cyber curriculum for interns and entry level engineers
    - Raytheon CODE Center
      - Conducted Red Hat and Windows hardening exercises
      - Managed automated patch management project where we used machine learning to prioritize required system and application patches
      - Worked with internal Raytheon programs to test for cyber resiliency and provided suggestions on ways to mitigate potential attacks
  - Cyber Security Engineer Intern, January 2017 - May 2018
    - Avionic Security Network Mapper

        - Designed and implemented databases (SQLite)
        - Created an intuitive user interface (Flask)
        - Researched known avionic vulnerabilities
        - Assisted in program planning by writing and proofreading system requirements, budget documents, program proposals, and project demonstration documentation
        - Received a patent for our solution
    - GPS
        - Aided in securing systems by writing and deploying hardening scripts (using Chef)
        - Deployed system and application patching to classified and unclassified systems
        - Helped prepare material for weekly cyber security class
        - Wrote a Python program that looks for classified keywords in documents to help prevent data spills
- Colorado State University
    - Research Assistant, September 2016 - January 2018
        - IoT Penetration Testing
            - Created Raspberry Pi network monitor for device classification and security vulnerabilities
            - Analyzed network traffic for vulnerabilities
            - Statically and dynamically analyzed device firmware
        - Wrote a Python script that pulls network data and puts the data into a logical structure to help during analysis.
        - Created websites for finished research projects
        - Wrote Python scripts to test the quality of transferred medical data
    - Teaching Assistant, January 2016 - January 2018
        - Taught students concepts in Java, Python, HTML, CSS and UNIX
        - Coordinated review sessions and create study material to break down complex information into more manageable sections
        - Assisted professors with curriculum by creating and critiquing homework and labs assignments

Patents & Awards

- Filed provisional patent for exploiting the hacking process to secure embedded protocols, September 2019
- Filed patent for avionic component identification algorithm, September 2019
- Received 2nd place in the Undergraduate Poster Competition at WiCyS, March 2017

Certifications

- Certified Ethical Hacker
- Part 107 Commercial Drone Pilot

Volunteer

- TraceLabs, August 2019 - Present
- Denver Metro Science and Engineering Fair, February 2019
- Girls Day at the Aurora Boys & Girls Club, February 2019

Activities/Presentations

- Will be presenting on "Exploiting Your Digital Footprint" at the Women in Cyber Security (WiCyS) conference in March 2020
- Presented Hacking Your Day-To-Day Tavel at the Women in Cyber Security Conference (WiCyS), March 2019
- Presented on automated patch management at the Ground System Architecture Workshop (GSAW), February 2019
- Presented a poster on gathering location data from an Android device at WiCyS, March 2017
- Participated on the White Team at the Rocky Mountain Collegiate Cyber Defense Competition (RMCCDC), March 2017
- Presented on the Security of Internet of Things (IoT) poster at Rocky Mountain Celebration of Women in Computing, September 2016

Personal Projects

Completed

- Android Information Gathering Tool is a tool that gathers and sends location from an Android phone to a user interface. Presented at the Women In Cyber Security Conference in 2017.
- CarMD is a web interface that helps people understand OBD-II error codes. Node.JS, ExpressJS, SQLite, and Python were used to consolidate and display the relevant information to the user.
- Facial Recognition Home Security Tool uses facial recognition to detect a home intruder. This project was completed as part of my operating systems class at Colorado State University.

In Progress

- Cipher Learning Tool is a tool used to demonstrate various ciphers, explain the history of ciphers and help the users understand password security (in terms of how long it'd take go

crack)

- Garmin Watch Interval Training App is an app designed for the Garmin Fenix 6 Pro watch that vibrates to notify the user when to start an activity and when to take a rest.
- Garmin Watch Climbing App is an app designed for the Garmin Fenix 6 Pro watch that records climbing statistics (for both bouldering and big wall climbing) that does not require the user to specify start/stop for each climb.

Publications

- Hacking Your Day-To-Day Travel, Presented at Women in Cyber Security, 2019
- Android Information Gathering Tool, Presented at Women in Cyber Security, 2017
- IoT Security Poster, Presented at Rocky Mountain Celebration of Women in Computing, 2016
- Steganography Poster

Web Design Portfolio

Wix/Weebly

- Custer County Realty
- Pulcinella Pizzeria

HTML/CSS

- Backcountry Perspective Photo & Video, LLC

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