Addy Moran

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

Education

- Master's in Computer Science, Arizona State University, May 2021
- 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
- Databases: MySQL, SQLite, MariaDB
- Operating Systems: Linux, Windows, OSX

- Web Development: Worpress, Wix, Weebly
- Full Stack Web Development
  - Python: Flask, CherryPy
  - JavaScript: Node.JS, ExpressJS
  - Front End Frameworks: Bootstrap, Materialize
  - Misc.: AsciiDoctor
- Automation: Chef
- Procedures: Scrum, Agile, and Test Driven Devleopment
- Applications
  - Text Editors: Emacs, Vim, Eclipse, GEdit, Notepad++, Sublime Text
  - Virtualization: VirtualBox, VMWare, CypherPath, AWS
  - Networking: Wireshark, NMap
  - Version Control: GitHub, GitLab, BitBucket, ZenHub

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.
  - Software Engineer, May 2018 - June 2019
    - Principle Investigator for an adaptive intrusion detection system for use in embedded communication protocols
    - 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 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
    - Received a patent for avionic component identification algorithm
    - Assist in program planning and documentation
    - Design databases to assist in machine learning algorithms
    - Implement additional features to improve user experience
    - Researched known avionic vulnerabilities
    - Assisted in program planning by writing and proofreading system requirements, budget documents, program proposals, and project demonstration documentation
    - Designed a database schema and created UML diagrams to reflect the schema
    - Created the database and wrote database wrapper classes to assist in full stack development
    - Assisted in full stack development to provide intuitive and easy to read results from the avionic data bus device mapping
  - GPS
    - Aided in securing systems by writing and deploying hardening scripts
    - 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 analyzing 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
    - Teach students concepts in Java, Python, HTML, CSS and UNIX
    - Coordinate review sessions and create study material to break down complex information into more manageable sections
    - Assist 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

- 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

- Facial Recognition

- Geolocation

Publications

- Steganography

- Hacking Your Day-To-Day Travel

- IoT

Portfolio

Web Design

Wix/Weebly

- Custer County Realty

- Pulcinella Pizzeria

HTML/CSS

- Backcountry Perspective Photo & Video, LLC

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