# Arthur "Trey" Hubbard

treyhubbard.com ● trey.hubbard@outlook.com ● 901-616-9101 ● Memphis, TN 38125

## EDUCATION

| **Starkville, MS** | **Mississippi State University** | **8/2014 - Present** |
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- M.S. in Cyber Security & Operations, Fall 2020. GPA: 3.89
- B.S. in Computer Engineering, December 2018. GPA: 3.77
- **Key Courses Completed:** Computer Forensics, Crypto & Network Security, Secure Software Engineering, Digital Systems Design, Reverse Engineering, Advanced Cyber Ops, Mathematical Foundations of ML, Security Management, Machine Learning

## LANGUAGES AND TECHNOLOGIES

- Python, C, C++, x86 assembly, HTML5, JavaScript, PHP, SQL
- Ionic4, jQuery, Microsoft Azure, Alexa SDK, AWS, Flask, Node.js

## EXPERIENCE

| **Penetration Tester, Intern** | **HORNE Cyber** | **12/2019 - 1/2021** |
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- Conducted network and application penetration tests from an external and internal perspective, as well as social engineering tests for our clients.
- Developed scripts to exploit known vulnerabilities to use during engagements.

| **SOC Analyst, GRA** | **NSPARC** | **5/2019 - 11/2020** |
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- Assisted in the process of becoming a FedRAMP authorized cloud service provider.
- Implemented processes that automated and integrated security practices in the software development life cycle.

| **Lead Web Developer** | **WithoutWalls, LLC** | **1/2019 - 12/2019** |
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- Recruited other like minded individuals to help work on the software development branch BitForge.
- Created a streamlined approach to building websites so they were easier to develop, maintain, and secure.

| **Tech Fellow** | **Facebook/CodePath** | **8/2018 - 12/2019** |
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- Taught the Facebook sponsored cybersecurity for-credit course at Mississippi State University.
- Created CTF challenges that mimicked real world targets and attack vectors.

| **Full-Stack Developer, GA** | **MSU Extension Service** | **9/2018 – 5/2019** |
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- Converted previous iOS and Android applications to an Ionic application to reduce development time and their codebase.

| **Full-Stack Developer, Intern** | **International Paper** | **5/2018 – 8/2018** |
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- Reduced the team's operating costs by 40% by developing a web application that created a standardized and streamlined way of building and managing webMethod flow services.

| **SQL Programmer, Intern** | **Hilton Worldwide** | **5/2017 – 8/2017** |
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- Created a PL/SQL script to perform the same as a third-party that reduced cost by $4,000 a month, as well as removing the two day delivery time.
- Completed 8 projects that focused on using real-time data to verify the data on travel sites.

## PROJECTS

**Autonomous Drone Charging Station (ADCS)**
- Communications Lead - Tasked with prototyping a cellular communication device that would allow the ADCS to communicate with a web, iOS, and Android application.

**Antikythera.io**
- Created a modern responsive website with the goal to demonstrate the capabilities of Antikythera LLC.

**BitForgeTech.com**
- Created a responsive website with a goal in mind to help Memphis businesses with tech related needs.

**IDA Functional Dependency Plugin**
- Developed an IDA plugin that displayed the functional dependency of all the functions in an easy to view html file to decrease the time it takes to reverse engineer malware.

**Embedded Systems Design**
- Developed a debugging application to be used for debugging lightweight OSs used by embedded devices.

**MSU Security Club**
- Co-Founder of the MSU security club, developed the website along with set up the web server and connected smtp, ftp, and databases to it.

## ACTIVITIES

**CTF Competitions**
- Participated in Facebook's Spring 2018 University CTF, where I got fourth place allowing me to obtain a scholarship to attend Black Hat and DEFCON 2018.
- Helped organize Memphis's first CTF competition, where 3 Universities were invited and over 50 people attending onsite for the competition. Our team ended up placing 3rd overall.

**CyberForce Competition**
- Blue Team Captain - Led the MSU team in the DoE's cyber workforce development competition by implementing common security practices as well as out-of-the-box ideas.

**Hackathons**
- Hack State where our team designed a space pirate themed game with flocking algorithms as the AI and procedurally generated planets to interact with.
- Participated in the SEC Academic Conference hosted at Auburn where the topic was Cyber Security "A Shared Responsibility".

## AWARDS/CERTIFICATIONS

**Eagle Scout** - obtained in October 2013 from the Boy Scouts of America

**Dale Carnegie Course** - obtained in July 2016 from Dale Carnegie

**Facebook Scholarship BH/DC 2018 & 2019** - obtained in May 2018/2019 from Facebook