Joshua Messitte

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Education

University of Georgia, Honors College, Phi Beta Kappa Honors Society — *BS (12/21)*- Summa Cum Laude (GPA: 3.9), Honors Distinction
BS Computer Science, MS Computer Science — *MS (12/22*)*- GPA: 4.0 (In Progress)

Technical Skills

Languages: (Proficient) Java, Python, C++, MIPS Assembly (Intermediate) x86Assembly, C (Beginner) JavaScript, PHP, Ruby
Frameworks / Technologies: Django, Flask, Node.js / R, MATLAB, SQL, HTML, CSS, IDA, Ghidra, STK (Systems ToolKit), Wireshark
Software / Licenses: Git, Maven / HAM Radio Technician (KO4PLI)

Experience

Booz Allen Hamilton – *Software Engineer (Incoming)* Present

Booz Allen Hamilton – *Cyber Intern, National Security Group*
Malware/Reverse Engineering Team June 2021 – August 2021

- Worked alongside a team of six cyber interns to develop a multi-faceted malware analysis tool capable of gathering pertinent information about the encryption routines and implementations in malware samples. This tool incorporated a web application that integrated machine learning, public malware analysis services, and a Ghidra script into one easy to use package that lowers the barrier of entry for new analysts and optimizes workflow for experts. Presented to company executives and won first place for our office.

Malware/Reverse Engineering Team June 2020-August 2020

- Focused on malware analysis and reducing barrier of entry for new malware analysts.
- Worked on a team of four and developed a framework of command-line tools for malware triaging, tagging, and analysis. These included a twitter scraper, a Slackbot, and a machine learning model. The tools were presented to Cyber Account leadership.

UGA Small Satellite Research Laboratory – *Mission Operations Team (Multiview Onboard Computational Imager Satellite)*
Team Lead January 2021- Present

- Research focused on automating satellite command and control via software development. As team lead I also direct and oversee flight software testing and other system tests of readiness as well as implementing the satellites Concept of Operations.
- Direct laboratory recruitment by coordinating applications, interviewing laboratory applicants, and onboarding new members.

Team Member October 2020 – February 2021

- Focused on satellite command-and-control via Python REST APIs and flight software interfacing via a software called TMTClab.

UGA Division of Academic Enhancement – *Computer Science Tutor* May 2020 – January 2021

- Relevant Courses: Software Development, Systems Programming, Data Structures, Intro to Python, Discrete Mathematics

UGA Visitor Center – *Tour Leader* November 2018 – Present

- Give year-round tours to prospective students and their families and serve as an all-around student ambassador and university representative. Staff the visitor center desk, answer phone calls, and help guests; hired as a freshman.

Research & Projects

MalPredict Malware Analysis Tool *(github.com/joshmess/malpredict)* June 2021 – August 2021

- Network Traffic analyzer integrated using the Flask Webserver which triages encrypted network comms, predicts malware using ML, and identifies encryption in binary sample.

Personal Website *(github.com/joshmess/portfolio)* September 2020 – Present

- Developed using HTML, CSS, JavaScript, and Bootstrap.

Android App Suite Fall 2021

- A suite of Android apps developed using Java and AndroidStudio. All found on my personal GitHub.

Bookaholics *(github.com/dseeler/bookaholics)* Spring 2021

- Website designed using the Django framework complete with user auth, encryption of sensitive data, and full administrative capabilities.

Distributed Computing Systems Spring 2021

- Java systems for parallel computation include a FTP client/server system, and a consistent-hashing-based nameserver. All on GitHub.

Computer Networking Suite Spring 2020

- Python tools focused on network analysis and latency diagnostics. TCP Traceroute, DoH capable DNS Server, etc. All on GitHub.

Malware Analysis Toolkit Summer 2020

- A modular framework with various features including twitter scraping, file tagging, and Yara database scaling.

Center For Orbital Satellite Mission Operations (COSMO) October 2020 - Present

- The COSMO station's goal is to track satellites and facilitate command and control as well as data uplink and downlink.

Multiview Onboard Computational Image (MOCI) Satellite 2016 - Present

- The MOCI satellite is a CubeSat slated for launch in Q2 of 2022 and is funded by the University Nanosatellite Program (UNP).