# Joshua Messitte

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UG: \*12/21 G: \*12/22

# Education

University of Georgia, Honors

B.S. Computer Science (\*12/21), M.S. Computer Science (\*12/21), Minor: Public Health

GPA: 3.9

Relevant Coursework: Software Development, Systems Programming, Discrete Mathematics, Data Structure and Algorithms, The Theory of Computation, Computer Architecture, Computer Networks, Distributed Computing Systems, Software Engineering, Algorithms

## Technical Skills

Languages: Java, Python, C, C++, Assembly (MIPS), JavaScript, PHP

Frameworks / Technologies: R, MATLAB, SQL, HTML, CSS, Django, STK (Systems ToolKit)

Software: Git, Maven

# Experience

### Booz Allen Hamilton - Cyber Intern

\*Enterprise Software Development Team

June 2021-August 2021

- Returning Intern

\*Malware Team June 2020-August 2020

- Worked on a team of five to construct a modular malware analysis framework.
- Developed an application that uses the LightGBM model to classify potential malware samples and analyze model degradation.
- Developed a tagging a searching tool to be used by the firm's malware analysts to classify large volumes quicker.
- First Booz Allen Hamilton remote internship program.

### **UGA Small Satellite Research** Laboratory – Mission Operations

\*Team Lead January 2021- Present

- Oversee a team of around 12 undergraduate students from STEM backgrounds.
- Direct and oversaw the development and maintenance of UGA's own Ground Station Hardware framework.
- Direct and oversaw the development and maintenance of UGA's own Ground Station Software suite.
- Direct laboratory recruitment by coordinating applications, interviewing laboratory applicants, and onboarding new members.
- Coordinate laboratory licensing with NOAA and the IARU.

\*Team Member October 2020 – February 2021

- Contributed to the development and testing of two low-earth-orbit satellites.
- Helped write Concept of Operations and flight software for MOCI (Multiview Onboard Computational Imager) Satellite
- Wrote software that interfaces with the TMTCLab API, connects to our satellite database, and runs command and telemetry tests automatically.

#### **UGA Division of Academic Enhancement** – Undergraduate Tutor

May 2020 - January 2021

- Peer tutor to other undergraduate students for the following courses: Intro to Programming, Intro to Python, Software Development, Systems Programming, Data Structures and Algorithms.

#### **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 a university representative.
- Staff the visitor center desk, answer phone calls, and help guests.

# Research & Projects

**MOCI (Multiview Onboard Computational Imager)** is a 6u CubeSat that's mission is to acquire imagery of Earth's surface from Low Earth Orbit and perform near real time Structure from Motion (SfM) using custom algorithms and high-power CPUs.

- Winner of University Nanosatellite Program (Competition NS-9) Flight Selection Review
- Launch scheduled for \*Q2 2022

**Computer Networking Suite** is a set of python scripts I developed during my junior year. This suite includes tools like secure TCP SYN traceroute with latency graphics and Download Accelerator using HTTP Range Requests.

- Launched to ISS 10/1/2020 and deployed by Nanoracks.

#### Malware Analysis Framework - A Toolkit of Static Malware Analysis

July 2020

- Presented to Booz Allen Hamilton Cyber Account (Some source files on GitHub) and will be integrated into the BAHAMAS framework.

#### **DNSSEC and its Potential for DDoS Attacks**

November 2020

- Computer Networks and Security Presentation (on GitHub).

#### Examining the Relationship Between Education Diet, and Type II Diabetes

April 2019

- Quantitative Research Paper using National Center for Biotechnology Information databases.