## Cell: 708-655-3255 www.anthonyrihani.com

#### **EDUCATION**

# University of Illinois at Urbana-Champaign

Expected Graduation Date: May 2024

Bachelor of Science in Aerospace Engineering, Minors in Computer Science and Mathematics

GPA:3.94/4.00 Dean's List: Spring 2021, Fall 2021, Spring 2022

#### **RELEVANT COURSES**

- Aerospace Flight Mechanics
- Applied Linear Algebra
- Computer Aided Design
- Differential Equations
- Discrete Mathematics

- **Electronics and Circuits**
- Incompressible Flow
- Intro to Computer Science I, II
- **Numerical Methods**
- Thermodynamics

#### RELEVANT EXPERIENCE

## **Eggl Research Group**

Undergraduate Research Assistant

January 2022-Present

Champaign, IL

- Work with Professor Siegfried Eggl to develop a satellite ephemeris API service that can be used to identify satellites causing a specific trail in astronomical images by passing in orbital elements
- Worked with the DiRAC Institute at the University of Washington to add code that will finish the Trailblazer Project, a data repository for satellite streak images
- Created standardizers for header files of long exposure images from different observatories to be added to the data repository

## **Illinois Space Society**

August 2021-Present

Spaceshot: Avionics

Champaign, IL

- Collaborate with other avionic sub-teams to upgrade the current avionics bay for a rocket submission to the Spaceport America Cup
- Implement software for the avionics bay to improve the current framework and extend functionality for the rocket to reach the Kármán line

# **Independent Tutor**

August 2020-Present

- Offer tutoring services remotely and assist 10 students remotely in the following fields: Mathematics, Computer Science, Physics
- Instruct students in the following courses and languages: Calculus, Linear Algebra, Algebra, Geometry, Physics: Mechanics, Java, Python

### **Resident Advisor**

August 2021-May 2022

Allen Hall University Housing

Urbana, IL

- Served as a resource to incoming first year students and transfer students living in a University of Illinois residence hall
- Facilitated programs that incorporate the Illinois Residential Experience while also fostering relationships between residents
- Conducted routine nightly checks throughout building to ensure the safety of 600 residents

# **Tran Research Group**

August 2021-December 2021

Undergraduate Research Assistant

Champaign, IL

- Investigated the possibility of improving human-machine collaboration by measuring implicit human feedback through EEG signals
- Developed software to process raw EEG data and detect Error Potentials for machine learning algorithms in later experimentation

#### **SKILLS**

- Java (Advanced)
- Python (Advanced)
- AutoDesk AutoCAD (Intermediate)
- AutoDesk Inventor (Intermediate)

- C++ (Intermediate)
- Git (Intermediate)
- Django (Intermediate)
- Siemens NX (Intermediate)