

September 22, 2020

Raytheon Missiles and Defense  
1151 East Hermans Road  
Tucson, AZ, 85756

Dear Hiring Manager,

I am writing this letter to apply for the A&S Guidance, Navigation, and Controls 2021 summer internship position (ID 167251BR). I attended the Fulton Career Fair at ASU, held on September 16<sup>th</sup>, 2020. During the event, I had the pleasure of speaking with Tom McCarthy about GNC and simulation work at Raytheon. I was very excited to learn about how work in missile guidance would allow me to combine my interests in computer systems and aerospace vehicle design.

I believe the following details of my background and technical experience illustrate my eligibility for this position:

- **Embedded Systems:** For the last year I have worked with a group of about 25 students to build a liquid rocket engine from scratch. As the avionics lead, I am currently working to design, prototype, and integrate the engine's embedded systems. As a direct result of my contributions, the avionics system has evolved from an experimental data acquisition setup with manual controls, to a fully integrated system with a unique software interface.
- **Linux Experience:** I began using the linux operating system to learn about computer systems and utilize some of the operating system's development tools such as the C compiler and Python interpreter. Additionally, I have worked through the complete installation of the Arch Linux distribution from the command line. This process included partitioning my hard drive, mounting the root file system, downloading the kernel, and setting up user permissions. I now use linux for most of my programming tasks.
- **Coursework:** As a part of my major concentration in autonomous vehicle systems, my upper division course focus is guidance, navigation, and controls. In addition to the coursework currently on my transcript, by the end of the 2021 academic year I will have completed additional coursework in embedded systems, control theory, and aircraft dynamics and control.

Thank you for taking the time to consider my application, I look forward to hearing from you. Please feel free to contact me by phone at 404-430-136, or by email at [cacost12@asu.edu](mailto:cacost12@asu.edu).

Sincerely,

Colton Acosta