**John Doe**

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# Professional Summary

Challenge-seeking leader with experience implementing solutions in the fields of Guidance, Navigation, and Controls and Remote Sensing, pursuing an internship for Summer 2024 with Blue Canyon Technologies. I offer a research-informed innovative mindset with notable contributions to various team projects.

# Skills

**Programming:** MATLAB, Bash, C++, JavaScript, HTML/CSS

**Software/Skills:** HPC, Linux (Ubuntu, Red Hat, WSL), GitHub, Simulink, SolidWorks, MBSE (SysML)

**Languages:** English (fluent), Spanish (read/write)

# Education

## Master of Science in Aerospace Engineering

### University of Colorado Boulder

### Expected Graduation: Dec 2023

**Current GPA: 3.5**

**Focus Area:** Astrodynamics & Satellite Navigation Systems

**Coursework:** Orbital Mechanics, Spacecraft Flight Dynamics, Space Flight Operations, Jet & Rocket Propulsion, Aerodynamics, Thermodynamics & Fluids, Dynamics & Control Systems

# Experience

## Space Architecture Intern

## *The Aerospace Corporation* Jun 2022- Aug 2022

* Utilized concurrent engineering methods as System Architecture Team Lead for intern concept design study.
* Evaluated 8 space architecture configurations for the detection and monitoring of wildfires in western United States
* Developed an ontology of foresight concepts in SysML to incorporate resilience into an enterprise.
* Demonstrated how key design decisions and assumptions affect system’s outcome using a dynamic Excel dashboard.

## Associate GN&C Engineer

## *Astranis Space Technologies* Jun 2021- Aug 2021

* Developed passive separation strategy and station-keeping guidance for formation flying of geostationary satellites.
* Implemented capability for simulating orbits of multiple satellites in existing single-satellite Python framework.
* Optimized angles of monopropellant thrusters for minimum fuel usage while maintaining controllability using and expanded grid-search method.

# projects

## Interstellar Exploration Systems Engineering Project Aug 2021-Dec 2021

* Established requirement breakdown given the constraints of interstellar exploration and problem statement.
* Explored trade space of propulsion and trajectory options to develop a concept architecture for an interstellar probe.

# Leadership

## Structures Lead: Ut ProSat 1 Sept 2021-Present

## *Hume Center National Security & Technologies*

## Designed & validated 3U CubeSat Chassis integrating mission components to meet the needs research mission.

## Used SOLIDWORKS to create satellite assembly & run simulations to check component compatibility / mission viability.

## Authored assembly procedures to allow for seamless satellite construction.

## Formulated STK simulation model of mission to estimate mission data budget & orbital lifetime.

# Honors & Hobbies

* CU Boulder Dean’s List (3) recognitions
* National Society of Collegiate Scholars
* Cycling, Bike building, Pottery, Rock Climbing