

PEDRO G. LEITE

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EDUCATION

University of Illinois Urbana-Champaign

August 2024

Master of Science in Aerospace Engineering

Cumulative GPA: 3.83/4.00

- Relevant Coursework: Stochastic/Robust Control, Multi-Agent Systems, Rocket Propulsion, Statistics and Probability, Finite Element Analysis

University of Illinois Urbana-Champaign

May 2023

Bachelor of Science in Aerospace Engineering

Cumulative GPA: 3.33/4.00

- Relevant Coursework: Numerical Methods, Aircraft Propulsion, Aircraft Flight Mechanics, Orbital Mechanics, Systems Design, Applied Aerospace Structures, Dynamical Systems

PROJECTS

Multi-Agent Systems (Class)

September 2023 – December 2023

- Designed a novel method of autonomously detecting and deorbiting debris in Medium and High Earth Orbit using linear consensus protocol through ground relay communications between deorbiting agents using Julia.

Classic Control Systems (Class)

January 2023 – May 2023

- Designed and implemented a LQR controller and observer system to stabilize a reaction wheel inverted pendulum using MATLAB's Simulink's Real-Time Desktop.

MARS Surveyor and Communications Orbiters for Positioning and Exploration Satellite

January 2023 – May 2023

Communications Subsystem Lead

- Performed a functional and physical decomposition of a system, wrote system requirements and verifications, ConOps.
- Ran a link budget analysis, and sized antennas and electrical components of both space and ground radio for a Mars satellite mission to provide GPS, communication relay, and mineral mapping of the planet's surface.

Aerospace Control Systems (Class)

April 2022 – May 2022

- Implemented an observer-based linear state feedback control design to stabilize a 4-rotor drone through a hoop circuit as quickly as possible, achieved 1st place in the class competition, performing 50% faster than the 2nd place.

Computer Aided Design (CAD) (Class)

January 2020 - May 2020

- Designed a 1:1 detailed scale model of the Russian rocket Soyuz-FG in Siemens NX.

PROFESSIONAL EXPERIENCE

University of Illinois, Department of Aerospace Engineering

August 2023 – May 2024

Teaching Assistant

Champaign, IL

- Taught section of 18 students and held office hours for over 140 students for the course: Autonomous Systems Laboratory.
- Rated 4.75/5.00 on teaching effectiveness by the students.

Azul Brazilian Airlines

June 2020 – August 2020

Team's Monitor Evaluator/Data Analysis Group Intern

São Paulo, Brazil

- Analyzed and manipulated an Excel spreadsheet together with 5 team members to identify unsatisfactory sales.
- Evaluated teammates' ideas and proposals to optimize project development.
- Formulated a data identification algorithm that was put in use by the company.

SKILLS

- Software: Python, MATLAB, LaTeX, GitHub, Siemens NX, Abaqus, Julia, HTML, Microsoft Suite
- Spoken Languages: Portuguese (Native), English (Fluent), Spanish (Fluent)