C O L B Y R. D A V I S

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E D U C A T I O N

Embry-Riddle Aeronautical University – Daytona Beach, FL — May 2024
Bachelor of Science in Aerospace Engineering – Astronautics — GPA: 3.3/4.00

University of Central Florida
Master of Science in Aerospace Engineering – Space System Design and Engineering — December 2025

P R O J E C T S

Embry-Riddle Aeronautical University Engineering Department

GNC Lead & Systems Lead – 12U CubeSat — August 2023 – May 2024
- Led a team of 5 students through design process adhering to NASA standards compliance
- Created AD&C (Attitude Determination & Control) profile for mission lifetime using Simulink
- Conducted thermal and vibration analyses using ANSYS
- Wrote procedures for environment and "Day in the life" testing
- Collaborated on satellite system design proposal document sent to NASA

Mission Manager – Variable Pitch Propeller — January 2024 – May 2024
- Designed and 3D-printed propellers and test platforms for variable pitch systems
- Integrated and wired electronics for propeller testing

Project Lead - Satellite Attitude Control System — October 2023 – December 2023
- Developed detumble/orientation controller using state-space model
- Created 3D satellite renderings to visualize detumbling and orientation maneuvers

CO-Lead – NASA Micro-G Next Eva Zip-Tie Installer — August 2023 – January 2024
- Actively engaged in hands-on prototyping of iterative models reducing costs by 20%
- Performed Finite Element Analysis on CAD (Computer Aided Design) model
- Drafted mission proposal showcasing design feasibility and operational readiness

Personal Projects

Owner – 3D Print Business — August 2023 – May 2024
- Developed and modeled a unique product using GD&T and Additive manufacturing concepts
- Worked with a partner to design and produce small scale gym equipment using 3D printing

Personal Project – Pan Tilt Face tracking system — Spring 2024
- Developed human face tracking system using Raspberry-pi and servo motors
- Programmed facial recognition and tracking algorithms in Python with 95% accuracy
- Designed real-time interface for monitoring and debugging

T E C H N I C A L	P R O T O T Y P I N G & T E S T I N G E Q U I P M E N T	P E R S O N A L
Python, MATLAB, Simulink, C++, FORTRAN, Linux.	CNC mills/lathes, laser cutters, 3D printers (FDM, SLA, SLS, metal additive).	Time Management, Leadership, Adaptability, Communication, Motivation, Problem Solving, Critical Thinking, Willingness to Learn