Cullen Flynn

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EDUCATION	Embry-Riddle Aeronautical University

B.S. Engineering Physics – Spacecraft Systems *May 2024*
Minors - Applied Mathematics, Astronomy
Relevant Coursework: Space Systems Design, Electronic Instrumentation, Classical Mechanics, Electromagnetics
Involvement: Phi Gamma Delta, Catholic Student Union, Trep Entrepreneurship Expo, Study Abroad

CURRENT ROLES

Embry-Riddle Aeronautical University **Daytona Beach, FL**
Space Systems Design I, II - Project Lead for 4-person team *08/2023 - Present*
- Leads a multidisciplinary team in the innovative design and development of a Laser Optic Communication system, focusing on enhancing long-range, high speed data transmission capabilities.
- Implements rigorous simulation and modeling practices using MATLAB, Code V and NI Multisim to accurately predict system performance, streamlining the development process.
- Delivers a prototype that showcases a steady-state improvement in data transmission efficiency.

Observational Astronomy - Independent Researcher *01/2024 - Present*
- Designs and executes a series of meticulous experiments aimed at determining the extinction coefficients for the Embry-Riddle 1 Meter telescope, enhancing the accuracy and reliability of observational data.
- Presents a report of research findings detailing experimental procedures, data analysis, and conclusions, contributing to the academic resources available for future observational astronomy projects at Embry-Riddle.

PAST ROLES

Embry-Riddle Aeronautical University **Daytona Beach, FL**
Microcomp. and Electrical Instrumentation Lab - Circuit Designer of 5-person team *01/2023 – 05/2023*
- Developed a BalloonSat prototype, integrating circuit design principles with advanced Unity Software displays.
- Engineered an innovative independent filtering system to bolster signal integrity and reduce noise, significantly improving the quality and reliability of data transmission from the BalloonSat.
- Collaborated with a multidisciplinary team of engineers and faculty advisors, incorporating feedback to refine the BalloonSat's design and functionality, ensuring it met both educational and research objectives.

Flynn Inns Inc **Hampton, NY**
Panorama Motel - Operations Manager *05/2022 – 12/2022*
- Oversaw daily functioning of the motel by coordinating front desk, housekeeping, and maintenance activities.
- Conducted a thorough analysis of the motel's financial state, identifying areas for cost reduction in supply chain and revenue enhancement, initiating and managing an AIRBNB revenue stream.

Daytona Auto Mall **Daytona Beach, FL**
Daytona Hyundai - Product Specialist *03/2021 – 08/2021*
- Provided expert responses to customer inquiries regarding vehicle specifications, financing options, and warranty services, fostering trust and building strong customer relationships.
- Collaborated with the sales team to tailor presentations and test drives to meet the specific interests and needs of prospective buyers, maintaining above average sales conversion from calls, dealer floor, and service department.

Measured Marketing Lab **Northampton, NY**
Marketing Operations - Summer Intern *05/2017 – 08/2019*
- Compiled and organized monthly marketing analytic reports for 4 client companies using Microsoft PowerPoint, providing the teams with valuable insights into campaign performance and customer engagement KPIs.
- Revitalized the online presence of a 3M subsidiary by overhauling their product catalog and search engine optimization using Microsoft Excel, leading to enhanced visibility and user experience on their website.

Clarkson University **Potsdam, NY**
Engineering and Ethics - Project Lead for 5-person team *01/2017 – 05/2017*
- Coordinated cross-functional efforts within the team to ensure that engineering principles and ethical standards were integrated into the design process, promoting a holistic approach to engineering challenges

SKILLS

Software/Data Science:	MATLAB; Simulink; CATIA (CAD); NI MultiSim for circuit modeling, simulation, and design tasks; C; C++; Python; Design of electronic and mechanical instrument diagrams; Mathematical modeling; Data mining, processing, and analytics utilizing Excel VBA
Professional Skills:	Technical Writing; Comfortable in leadership positions; Executive presentations and sales; Capable of translating complex technical concepts into clear, actionable insights for varied audiences; Balancing technical requirements with market needs to deliver competitive solutions; Certified understanding of Lean Six Sigma