EDUCATION

 San Jose State University | Bachelor's in Aerospace Engineering
 Aug 2019 — May 2022

 Fundamentals of Engineering (FE) Exam Applicant — Pursuing professional licensure
 Latinos in Tech Scholarship Recipient — Awarded for academic and technical excellence.

PROFESSIONAL SUMMARY

Aerospace engineer with a strong foundation in mechanical design, data analysis, and system troubleshooting. Experienced in collaborating with cross-functional teams to resolve complex hardware and software issues and support system performance. Proficient in MATLAB, AutoCAD, and SolidWorks with working knowledge of Python and C++. Highly motivated to support Pyka's Flight Operations team to ensure maximum fleet uptime and inform data-driven design improvements.

PROFESSIONAL EXPERIENCE

Mechanical Engineering Intern | ALEF

- Troubleshot and resolved technical issues in real-time, ensuring operational continuity and enhancing system reliability.
- Supported the design and integration of components within specific tolerance requirements, contributing to optimized performance.
- Collaborated with engineering teams to address software/hardware integration challenges, applying data analysis to inform design improvements.

Engineering Mentor | Summer Springboard

- Guided students in technical troubleshooting, problem-solving, and engineering concepts, fostering their handson learning.
- Assisted in research projects with an UCLA professor, supporting data collection and analysis to ensure accurate findings.

ENGINEERING PROJECTS

HYPESAT Project | San Jose State University (https://www.gallagasportfolio.com/hype-sat) Aug 2021 – May 2022

- Designed and tested the housing for a hyperspectral imager in a high-altitude satellite, ensuring structural integrity and performance under operational conditions.
- Analyzed system performance data, working with team members to troubleshoot issues and ensure project success.

Airbus A380 Project | San Jose State University (https://www.gallagasportfolio.com/a380)

- Conducted MATLAB simulations to analyze the takeoff and landing performance of the Airbus A380, identifying safety limits and potential points of failure for key subsystems.
- Performed detailed data analysis on flight dynamics to troubleshoot performance issues and enhance operational stability, focusing on critical variables that affect real-time flight control and safety.

Airfoil Design Analysis | San Jose State University (https://www.gallagasportfolio.com/atd-analysis) Spring 2021

- Led aerodynamic simulations to optimize airfoil design, achieving an 18% improvement in efficiency by accurately modeling airflow behavior and system stability.
- Utilized MATLAB for precision data analysis, producing reliable design validation and ensuring aerodynamic performance under variable operational conditions—skills directly applicable to troubleshooting and validating complex hardware/software interactions in autonomous flight systems.

Jan 2024 – Oct 2024

May 2024 – July 2024

Spring 2022