DANIEL CORDOVA

Los Angeles, California | (213) 713-4365 | dacordov@usc.edu | www.linkedin.com/in/daniel-cordova-394285221

EDUCATION

University of Southern California — Los Angeles, California
Master of Science Aerospace Engineering — January 2025-December 2026
- GPA: 3.70

University of Southern California — Los Angeles, California
Mechanical Engineering Bachelor of Science — August 2021-May 2026
- GPA: 3.36

EXPERIENCE

Honeywell Aerospace Technologies — Phoenix, Arizona
Intern Certification Engineer — June 2025-August 2025
- Created an AI tool using Retrieval-Augmented Generation (RAG) to streamline FAA certification by identifying relevant federal regulations for proposed design changes
- Drove initial certification efforts for a more electric aircraft architecture, ensuring compliance with all emergency and redundancy requirements

Honeywell Aerospace Technologies — Phoenix, Arizona
Intern Certification Engineer — May 2024-August 2024
- Created an automation script in DOORS NG to standardize and accelerate certification processes for new aircraft engines and design modifications, improving efficiency and consistency in documentation
- Led a data analysis project based on feedback from FAA engineering unit members, identifying common errors and updating certification document templates
- Constructed a comprehensive comparison matrix to align FAA 14 CFR part 33, 33.70 requirements on Engine life-limited parts with Honeywell's certification plan for next-generation engines

University of Southern California — Los Angeles
Graduate Teaching Assistant, Mechatronics Laboratory — January 2025-December 2025
- Instructed for a junior-level mechatronics laboratory covering sensors, actuators, embedded systems, and closed-loop control
- Evaluated lab reports and design deliverables with emphasis on experimental methodology, uncertainty, and engineering communication
- Organized test setup, instrumentation validation, debugged hardware and software integration issues, and enforced lab safety and documentation standards

Quimera Holding Group — Arequipa, Peru
Intern Analyst Copper Mine Project — May 2022-August 2023
- Developed financial models for outsourcing copper mine processes, helping to secure a $1.5 million investment
- Prepared cash flow projections and profitability scenarios operating Microsoft Excel, incorporating price sensitivity analysis

LEADERSHIP AND INVOLVEMENT

USC Drone Development Team — Los Angeles, California
Mechanical Systems Responsible Engineer — September 2023-Present
- Selected by a professor from the Aerospace and Mechanical Engineering Faculty to lead the 3D-printed drone development project, overseeing design, testing, and manufacturing processes
- Designed and optimized airfoil and fuselage geometry with a rotating propeller assembly in Siemens NX for a drone capable of vertical takeoff and landing with a high lift to drag ratio for prolonged gliding
- Led the additive manufacturing team, cutting production time by more than 50% by producing prototypes in-house

USC Liquid Propulsion Laboratory — Los Angeles, California
Turbomachinery Engineer — January 2025-Present
- Defined and parametrized turbopump volute geometry in Siemens NX, optimizing cross-sectional area growth and tongue geometry to ensure uniform pressure recovery and prevent flow separation at the impeller discharge
- Conducted CFD simulations in ANSYS CFX of a turbomachinery impeller assembly, analyzing velocity, pressure, and loss distributions to evaluate performance, and inform iterative design improvements
- Formulated initial test stand architecture for impeller validation and performed initial sizing calculations for first-/ever student-developed turbopump-fed liquid rocket engine
- Directed key early-phase technical discussions from preliminary design review to critical design review and concept of operations

Formula SAE Electric University of Southern California — Los Angeles, California
Chassis Team member — August 2023-September 2024
- Designed chassis CAD model in SolidWorks for yearly Formula SAE Electric competition, ensuring safety compliance and minimizing weight
- Collaborated with cross-functional teams to integrate all required vehicle components within a limited space while minimizing weight

SKILLS

- Engineering and Design: CAD, Structural Analysis, Finite Element Analysis, Requirement Management Systems
- Software Proficiency: Python, MATLAB, Siemens NX, ANSYS, SolidWorks, XFOIL, DOORS Next Generation, Microsoft Office
- Languages: Spanish (Native), English (Fluent), German (Fluent, certified by the German government)