Cesar Fernandez-Prado

Mechanical Engineer

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PROFILE

Product development-oriented Mechanical Engineer experienced in taking concepts through prototyping, testing, an iterative refinement. Skilled in failure analysis, data analysis, and process automation. Passionate about building reliabl user-centered products that balance performance, cost, and reliability.

SKILLS

CAD Modeling	Matlab/Simulink
CFD Simulation	Mechanical Design
Engineering Drafting	Probabilistic Engineering
FE Simulation	Advanced Solidworks

EMPLOYMENT HISTORY

June 2021 — August 2023

GIS Subject Matter Expert for Apple Maps,
Apple Inc.

- Took ownership of improving the quality and efficiency of data analysts, resulting in a 20% reduction in defects
- Formulated and reported KPI's for global events and areas serving over 100M users, highlighting achievements and identifying areas for improvement
- Conducted thorough Root Cause Analysis, developed effective corrective action plans, tracked their implementation, and regularly reported trends to leadership.
- Developed and updated existing operating procedures and training materials related to Data Quality and Maintenance, ensuring that all materials are up-to-date and relevant to the current needs of the organization

January 2021 — Sep 2021

Research Engineer in Energy Dispersive Diffraction,
Lockheed Martin

- Optimized data analysis techniques for X-Ray Diffraction Spectroscopy, improving denoising methods and peak detection in 3D residual stress data
- Created and implemented Matlab scripts to automate denoising and peak detection processes of dense data sets and improving data quality by 25%
- Demonstrated self-reliance in producing high-quality results and deliverables within tight deadlines.

Sep 2020 — June 2021

Research Assistant in Reliability Analysis of Aerospace Structures,
St. Mary's University

- Utilized statistical analysis of failure-probability models to optimize inspection scheduling of aircraft, resulting in a significant increase in maintenance efficiency
- Designed and implemented Matlab programs that create and update probability of failure models
- Conducted comprehensive failure analysis of aircraft structures and employed Bayesian Inference to update failure probability for improved safety and performance

EDUCATION

Aug 2015 — May 2020

Bachelor of Science in Mechanical Engineering, St. Mary's University

- GPA 3.3

LANGUAGES

English	*Native Speaker*	French	*Good command*
Spanish; Castilian	*Native Speaker*		

COURSES

Jun 2020 — Aug 2020

Using Python for Research, *Harvard University*

PROJECTS

Formula 1 Live Data Telemetry Tracker with Streamlit Python Library