German Markaryan

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PROFESSIONAL SUMMARY

Mechanical Design Engineer specializing in the full product development lifecycle, electromechanical integration, and Design for Manufacturing (DFM). Proven track record deploying, testing, and iterating from CAD to high-volume production. Experienced in designing plastic components and assemblies, utilizing simulation, modeling, and data analysis to drive reliability.

WORK EXPERIENCE

Hayden AI, San Francisco, CA 08/2026 - Present
Mechanical Engineer

- Investigated device instability using accelerometer data analysis and structural FEA modal analysis in SolidWorks, utilizing custom Python scripts for large-scale data processing.
- Released 4 production-ready part designs using ASME Y14.5 GD&T standards in SolidWorks for CNC and sheet metal manufacturing.
- Conducted First Article Inspection (FAI) on 4 die-cast parts to ensure compliance with design specifications and quality standards.
- Designed an analog surface curvature survey device, iterating through over 32 rapid prototype versions using additive manufacturing.

Skycart, Livermore, CA 03/2026 - 05/2026
Mechanical Engineering Intern (Part-Time)

- Developed 4 UAV payload-release concepts and designed a servo-driven rack-and-pinion retention mechanism in SolidWorks for fail-safe operation.

Santa Clara University, Santa Clara, CA 09/2025 - 05/2026
Team Lead, ATLAS Solar Tracking Platform (Senior Design)

- Led a team of 6 engineers to deliver a single-axis solar panel platform, overseeing product design and project management.
- Designed a waterproof photoresistor sensor module for reliable sun detection, validated through custom testing procedures.
- Redesigned the rotation mechanism using existing parts to convert failure-causing push force into controlled rotation, successfully delivering a working proof of concept.

Hyster-Yale Materials Handling, Portland, OR 04/2024 - 09/2024
Mechanical Engineering Intern

- Designed a protective enclosure using Siemens NX that was 95% cheaper than the OEM solution ($850 vs. $17,646), managing the full lifecycle from stakeholder interviews to installation.
- Automated weld simulation preprocessing, reducing preprocessing time by 87%; authored a manual currently used company-wide.
- Verified over 8 parts and assemblies using linear and nonlinear structural FEA in ANSYS Mechanical.

EDUCATION

Santa Clara University, Santa Clara, CA 06/2026
B.S. Mechanical Engineering

SKILLS

CAD & Documentation: Siemens NX, SolidWorks, PDM, engineering drawings, GD&T (ASME Y14.5)
Analysis & Testing: Ansys Mechanical, Abaqus CAE, Simcenter 3D, structural FEA, test planning, first article inspection
Design & Manufacturing: DFM/DFA, tolerance analysis, BOMs, machining, rapid prototyping, FMEA, root cause analysis
Programming: Python (Abaqus scripting), MATLAB, C++, Arduino