

# German Markaryan

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## PROFESSIONAL SUMMARY

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Mechanical engineering student graduating June 2026 with experience in FEA, enclosure design, and embedded systems across two engineering internships.

## EDUCATION

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**Santa Clara University**, Santa Clara, CA Expected: 06/2026  
*B.S. Mechanical Engineering* GPA: 3.2  
**Relevant Coursework:** FEA, GD&T, Machining, Machine Learning

**Portland State University**, Portland, OR 09/2021 - 12/2024  
*B.S. Mechanical Engineering (Transferred)* GPA: 3.4  
**Relevant Coursework:** Machine Design, Manufacturing Processes, Design of Experiments

## WORK EXPERIENCE

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**Skycart**, Livermore, CA 03/2026 - Present  
*Mechanical Engineering Intern, Mechanical Design and Integration*

- Designing and validating the UAV payload pod: structural geometry, package retention, and release mechanism for autonomous last-mile delivery

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

- Led 6-engineer team through full development of an automated dual-axis solar tracker
- Designed optical sensing enclosure with 10-degree misalignment sensitivity and waterproof sealing validated across seasonal tilt conditions
- Caught a fundamental centering flaw in the v1 dual-actuator elevation design mid-project; rebuilt the mechanism using a lead screw architecture

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

### Project EAGLE: Protective Enclosure for Instron 8801

- Owned full project scope from user research through Siemens NX modeling, BOM, vendor negotiation, and on-site installation
- Delivered enclosure at \$850 vs. \$17,646 vendor quote (95% cost reduction, one month ahead of schedule); selected polycarbonate via impact analysis for 40x protection improvement

### Project AWESOME: FEA Weld Workflow Automation

- Automated weld modeling in Ansys Mechanical, cutting preprocessing time 87%; completed 150-weld forklift chassis in 3 days vs. a 2-week baseline
- Authored Automatic Welding Procedure adopted across U.S. and international Global Modeling and Simulation teams

### Wheel Force Transducer Adapter Validation

- Validated 2 to 3-ton forklift adapter assemblies via nonlinear FEA with bolt preload, friction contacts, and combined torsion and radial loading; all stresses held below endurance limits

## PROJECTS

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**GWatch**, Personal 2026  
*Custom Smartwatch: Hardware, Firmware, and Enclosure*

- Built functional wearable from scratch with custom firmware, and iOS compatibility
- Iterated enclosure through 3 generations: cut height from 20 mm to 16.4 mm (18% reduction), converted to unibody, set 0.2 mm tolerances throughout; final geometry planned for CNC machining in metal

## SKILLS

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**CAD:** Siemens NX, SolidWorks, Onshape

**Simulation:** Ansys Mechanical, Abaqus CAE, Simcenter 3D

**Programming:** Python (Abaqus scripting), MATLAB, C++, Arduino

**Hardware:** GD&T, DFM, DFA, tolerance analysis, BOM, machining, prototyping, system integration, testing

**Embedded and Tools:** Linux CLI, Git, I2C, sensor integration, oscilloscopes, hardware debugging, firmware bring-up