STEVEN VAN OVERMEIREN

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EDUCATION

Arizona State University – Ira A. Fulton Schools of Engineering **Tempe, AZ**

Master of Science in Mechanical Engineering (CAD/CAM/Design Computing) *May 2026*

Coursework: Applied Computational Fluid Dynamics, Finite Elements in Engineering, Polymers and Composites, Wind Energy

Bachelor of Science in Mechanical Engineering GPA: 3.80/4.0 *Graduated May 2025*

Coursework: Mechanical Engineering Design I and II, Computer-Aided Engineering I and II, Principles of Mechanical Design, System Dynamics and Control I and II, Fluid Mechanics, Heat Transfer, Structural Mechanics, Mechanics of Materials

INTERNSHIP AND WORK EXPERIENCE

General Atomics Electromagnetic Systems (GA-EMS) **San Diego, CA**

Graduate Mechanical Engineering Design Services Intern *June 2025 – Present*

- Designed an incorporated multiple new valve assembly configurations using Creo Parametric for GA-EMS's flagship electrostatic oil refinery to meet specific customer requests, considering existing system interference and minimizing cost.
- Created various part and assembly fixtures in SolidWorks for assembling optical sensor systems to be used in the Tranche 2 tracking layer, utilizing DFM and GD&T concepts to ensure low manufacturing costs and intentional part fitment.
- Helped transfer U.S. EMALS systems engineering component specification documentation into a DOORS format for EMALS use on the Future French Carrier
- Researching and proposing the new-age engineering workflow of using SolidWorks 3D model-based definition PMI as opposed to 2D engineering drawings for GA-EMS, potentially mitigating manufacturing challenges and discrepancies.

Mechanical Engineering Design Services Intern *June 2024 – August 2024*

- Incorporated engineering change notices to execute CAD part design changes and drawing updates for the Electromagnetic Aircraft Launch System (EMALS) and Advanced Arresting Gear (AAG) going on future aircraft carriers.
- Processed engineering purchase part requests by constructing mechanical and electrical models of commercial-off-the-shelf (COTS) items for CAD reuse across the Electromagnetic Systems group.
- 3D printed projectile testing components for General Atomics affiliated companies using industrial Stratasys F900 FDM printers.

ASU 3D Print and Laser Cutter Lab **Tempe, AZ**

3D Lab Aide Technician *June 2022 – Present*

- Executing student 3D print submission requests using the Bambu Lab X-1 Carbon, Prusa i3 MK3S, Prusa XL, Creality CR-10, and Stratasys Mojo printers, aiding their success in coursework and research projects.
- Teach and assist students how to use the university provided Universal VLS 6.60 60 W laser cutters safely and reliably.
- Maintaining and frequently repairing 3D printers and laser cutters worn down by excessive use, replacing printer hot ends and laser lenses and motor belts.

PROJECT EXPERIENCE

Senior Capstone (ASU Solar Car Rear Suspension) **Tempe, AZ**

Hardware and CAD Lead *August 2024 – May 2025*

- Designed and fabricated a rear trailing arm suspension for the ASU Solar Car team's 2026 competitor.
- Led the design process of the trailing arm by benchmarking with existing suspension, conducting mathematical calculations on potential solutions, and creating the CAD model weldment reference for manufacturing.
- Utilized Ansys Mechanical to conduct Static Structural FEA on various designs to verify design feasibility under load.
- Collaborated with the ASU machine shop to CNC mill low-tolerance machined parts for motor and shock mounting points.
- Tested the trailing arm with a spring scale to precisely measure ASC regulation loading conditions it was required to pass.

Arizona State University Solar Car Team **Tempe, AZ**

Mechanical Systems Team Lead *April 2022 – May 2025*

- Delegated and oversaw all tasks of the mechanical team related to chassis, suspension, steering, and brake systems.
- Led the fabrication of the solar car chassis by creating a custom welding table, constructing and CNC routing MDF weld fixtures, and TIG welding together hand-coped steel tubes.
- Designed the final CAD assemblies of the front suspension, steering, and brake systems and used Ansys Mechanical to run both stress and thermal finite element analysis on their relevant systems to ensure good regulation compliance and factor of safety.

SKILLS

Design and Analysis Tools: SolidWorks, Ansys Mechanical/Fluent, Creo Parametric, Siemens NX/Simcenter 3D, ABAQUS, Fusion360
Fabrication and Manufacturing: MIG and TIG welding, CNC router, knee mill, lathe, drill press, laser cutting, 3D printing, power tools
Technical Skills: MATLAB, JavaScript, C++, Windchill, Excel, PrusaSlicer, Bambu Studio, UCP and LSM Laser Software, CorelDraw
Certifications: SolidWorks Certified Associate in Mechanical Design (CSWA) - C-T9PJ8SKLX5