Yanis Yankauskas

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Education

University of California Santa Barbara **Expected June 2026**
Bachelor of Science (B.S.) in Mechanical Engineering, GPA 3.84, Dean's Honors Santa Barbara, CA

- Campus involvement: FSAE, Hansma Research Lab
- Relevant Courses: Design and Construction of Scientific Apparatus, Intro to Machine Shop, Radiative Energy Transfer (taking), Toy Product Design

Professional Experience

Undergraduate Student Research Assistant **September 2022 - Present**
Hansma Research Lab Santa Barbara, CA

- Designed electronics packaging in Solidworks/Onshape for a consumer biomedical electronics product; Focusing on ease of assembly, injection molding manufacturability, and ergonomics.
- Designing injection molds for the casing in Onshape to be 3D-Printed in resin and used to manufacture cases for future studies.
- Designed multiple iterations of a custom low-energy Bluetooth PCB in KiCad to greatly decrease power draw, optimize charging, and reduce assembly time and cost.
- Developed a Low-Energy Bluetooth application in C on the Zephyr RTOS for an nRF SoC. Programmed drivers for communicating over I2C and SPI to collect and display sensor data.

Experience

Aerodynamics Team Member **September 2022 - Present**
UCSB Formula Society of Automotive Engineers (FSAE) Santa Barbara, CA

- Researched composite manufacturing and assisted in leading testing and validation of manufacturing wing elements using foam strengthened with resin-impregnated fiberglass sheets.
- Manufacturing foam mold to be used in making a composite nosecone for the final car.
- Ran confirmation CFD studies in Ansys for a 2D airfoil with my simulation generating results within 5% error of experimental data. Then tested multiple airfoils profiles at different angles of attack too maximize lift.
- Researched side pod design for maximum thermal dissipation and minimum drag.

Subsystem Lead **January 2022 - June 2022**
FIRST Robotics Competition (FRC): Team 972, Iron Claw Los Gatos, CA

- Managed a team of 10 to design the ball acquisition, indexing, and shooting subsystems on the team's 2022 FRC robot in Onshape, leading to the best competition performance out of 18 years.
- Designed an aluminum upside-down electrical board in Onshape for easier access and serviceability to all electrical components, allowing 3 critical fixes during competition and decreasing the electrical inspection time.
- Led a team of 10 students in using iterative laser-cut and 3D-printed prototypes on 3 subsystems on the team's 2022 FRC robot to identify issues, which for the first time in 18 years allowed time for coding and practicing.

CAD Lead, CAD Team Member **August 2019 - June 2022**
FIRST Robotics Competition (FRC): Team 972, Iron Claw Los Gatos, CA

- Created and taught a curriculum on CAD, CAM, and design for FRC to 15 students, leading to an increase in the quality of parts and assemblies, and more design contributions from newer members.
- Collaborated with other team leads to design a drivetrain and electrical board for more engaging off-season training and in-team competitions; 5 were machined leading to a better learning experience for 50 students.
- Researched solutions for ball jamming for the 2019 FRC robot and developed a passive wheel roller that was machined and worked 80% of the time.

Technical Skills

Software: Solidworks, Onshape, Ansys, KiCad, Fusion 360, Fusion 360 CAM, Autodesk Inventor, Blender
Mechanical: CNC Mill, 3D Printing, Laser Cutting, Lathe, Hand tools
Electrical: Soldering, Wiring, Crimping