Dylan Kauffmann

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EDUCATION

University of California, Santa Barbara (UCSB)

Santa Barbara, CA

Bachelor of Science (BS) in Mechanical Engineering, GPA: 3.71/4.0

Expected Graduation: June 2026

- Key Coursework: Control System Design, ML, Foundations of Circuits, Thermodynamics, & Fluid/Areo Dynamics
- Awards: College of Engineering Honors, Dean's List & ME153 Best Project Presentation Award

Ransom Everglades High School

Miami, FL

High School Diploma, GPA: 3.8/4.0

Graduated: June 2022

RELEVANT EXPERIENCE

Undergraduate Research Assistant

April 2025 – Present

Hawks Lab, UCSB

Santa Barbara, CA

Developing the World's Fastest Running Shoe

- Rapid prototyping of an air-bladder midsole, achieving all 5 design goals—including 85% energy return, linear force-displacement behavior, and structural robustness—surpassing performance of conventional foam.
- Iteratively refined prototypes using MATLAB for data analysis of drop-testing experiments, and continual mechanical improvements to testing apparatus, ensuring reliable and reproducible data.
- Took over a graduate-level project independently after a postgraduate's departure, advancing it with faculty guidance, and later mentoring another researcher in prototyping and testing.

Process Engineer Intern

June 2024 - Sep. 2024

Ft. Lauderdale, FL

• Operated the SMT line, analyzing Gerber files & generating manufacturing documentation for US Defense Companies.

- Oversaw end-to-end PCB manufacturing, continually resolving issues impeding operation, mitigating production losses.
- Designed a new arbor press machine, decreasing the time to insert broaching nuts into PCB boards by roughly 20%.

Financial Analyst Intern

Dec. 2023 - Mar. 2024

Blue Opal Capital

Santa Barbara, CA

- Developed quarterly reports analyzing dozens of VCs, providing insights to leadership that contributed to a 40% IRR.
- Pioneered the implementation of a data analytics that extracted and interpreted data increasing efficiency by 45%.

Projects

URtech

Autonomous Fire Detecting Drone | UCSB Capstone Project

June 2025 – Present

• Ground up design of a drone to combat California's wildfire crisis.

Baseball Automated Ball Retriever | UCSB ME153 Project

April 2025 – June 2025

• Developed and manufactured an autonomous rover using image processing to retrieve and collect baseballs.

Formula SAE Electric Race Car | UCSB Gaucho Racing Club

Sept. 2023 – June 2024

- Participated in a race car team, with a role in building an powertrain module to win Formula SAE Competition.
- Utilized SolidWorks FEA to design and fabricate differential manifold optimizing weight, chassis strength, and cost.

Electric Skateboard | Individual Project

Sept. 2022 – May 2023

 Designed and developed an electric skateboard from scratch creating battery pack from individual cells, BMS, RC controller and motor mounts.

Extracurricular Activities

Study Abroad | University of Chile

Aug. 2024 – Jan. 2025

• Fluid Mechanics & Feedback Control Systems Laboratory, Tennis Selection U Chile, and Cultural Immersion Program

Tennis | UCSB D1 Team Hitter & Club Tennis Player

Sept. 2018 – Aug. 2024

- \bullet Reached top 2000 in USA and 10 UTR playing state and national level USTA tournaments for +10 years.
- Singles and Doubles player for the UCSB Club Tennis team, leading to finalist in the national championship.
- Stringer and team hitter for UCSB's D1 Tennis team contributing to their prestigious Big West Championship titles.

SKILLS & INTERESTS

Languages: English (Fluent), French (Fluent), Spanish (Advanced), and German (Intermediate)

Software: Matlab/Simulink, SolidWorks, Fusion 360, COMSOL, Python, C++, C

Career Interests: Autonomous Vehicles, Avionics & Flight Control, and Soft Robotics

Personal Accomplishments: Sailing Expedition from France to Croatia — (2025) 140.3 Ironman Texas (41st Place M18-24)