

Will Bricca

+1 (916) 833-5926 | briccawill@gmail.com | Santa Barbara, CA

EDUCATION

University of California, Santa Barbara

Bachelor of Science in Mechanical Engineering, GPA: 3.63/4.0

Santa Barbara, CA

Expected June 2026

SKILLS, COURSEWORK & INTERESTS

Software: SolidWorks, MATLAB, Python

Technical Areas: Controls, Dynamics, CAD Design, Manufacturing Processes

Relevant Coursework: Control Systems, Machine Design, Dynamics, Vibrational Analysis, Thermodynamics, Fluid Mechanics

Interests: Endurance Sports, Instrumental Music, Pittsburgh Steelers

WORK EXPERIENCE

Mechanical Engineer

Sep. 2024 – Present

Dragon Q Energy

Santa Barbara, CA

- Designed and modeled custom housings for 48p14s lithium-ion battery packs, ensuring manufacturability, safety, and structural integrity.
- Directed end-to-end pack build process for 7.5 kWh MVP battery systems, including cell welding, housing fabrication, and integration of safety/BMS features.
- Collaborated with utility pole hardware manufacturers to evaluate and specify attachments for safe, scalable integration of battery packs into field-deployable energy systems.
- Currently automating build processes to begin manufacturing at production-level capacities.

Project Engineer

June 2024 – Sep. 2024

Human Motor Control Group, University of Osaka

Osaka, Japan

- Conducted analysis of rehabilitative running techniques, optimizing lower limb kinetics to minimize joint stress in recovering patients.
- Developed 3D simulations in MATLAB using motion capture data to show joint dynamics and energy efficiency.
- Performed electromyographic (EMG) analysis on eight lower leg muscles, correlating kinematic data with muscle activity, to help find optimal running techniques.

PROJECTS

VTOL Fire-Mapping Drone | UCSB Senior Capstone

Sep. 2025 - Present

- Leading preliminary design of the airframe and VTOL architecture for an autonomous wildfire-mapping drone.
- Collaborating with a multidisciplinary team to explore innovative solutions for wildfire detection, response, and mitigation.
- Engaging with local firefighting and emergency response teams to align system design with real-world operational needs.

Autonomous Baseball Retriever | UCSB ME153 Project

Apr. 2025 – June 2025

- Awarded Best Presentation for innovative design and execution among junior capstone projects.
- Repurposed a children's RC Jeep, adding caster wheels, additional motors, and custom circuitry to enable navigation.
- Designed a novel scooping mechanism to efficiently collect baseballs from the ground into the vehicle's storage.
- Developed and tuned a PID controller integrated with a computer vision pipeline, enabling the robot to detect balls via onboard camera and autonomously retrieve baseballs.

FPV Quadcopter Drone | Personal Project

July 2025 – Present

- Designed and fabricated a custom FPV quadcopter from the ground up, including CAD-modeled chassis optimized for stability and lightweight strength.
- Integrated flight controller, ESCs, receiver, and Li-ion battery system for reliable long-range mountain exploration flights.

ORGANIZATIONS

Engineers Without Borders

Sep. 2024 – Present

Team Member

Santa Barbara, CA

- Designing major joints and framework for a solar-powered charging table to be placed on the UCSB campus.
- Overseeing all major part drawings to ensure they meet industry-standard machining requirements.

Zeta Beta Tau

Sep. 2023 – Sep. 2024

Recruitment Director

Santa Barbara, CA

- Marketed the organization to potential new members over an intensive two-week period while coordinating with a chapter of 120 members.
- Recruited 65 new members to the organization over two recruitment cycles.