Gabe Kozielec

Los Angeles, CA | (469) 623-6122 | gabe.kozielec@gmail.com | gabekozielec.com | LinkedIn
U.S. Citizen | Available May 2027 | Open to relocation

EDUCATION

UNIVERSITY OF SOUTHERN CALIFORNIA, VITERBI SCHOOL OF ENGINEERING

M.S. in Aerospace Engineering Expected May 2027

B.S. in Aerospace Engineering Expected December 2026

Director's Scholarship Recipient | Dean's List (2022)

TECHNICAL SKILLS

- **CAD & 3D Annotation:** CATIA, Siemens NX, SolidWorks, GD&T, FT&A, technical documentation
- **Simulation & Test:** SolidWorks Simulation, Siemens NX FEA, JetSizer-II, Ansys (basic), MATLAB, LabVIEW, Python
- **Fabrication:** Carbon fiber layups, shop fabrication and assembly

ENGINEERING EXPERIENCE & RESEARCH

Structures Engineering Intern | Boeing, Core Structures Design Team May 2026-Aug 2026

Long Beach, CA

- Modeled a B-52 structural part in CATIA and applied GD&T with FT&A to 3 structural component models; reviewed clearances, coatings, EME and fastener compatibility.
- Met with engineers on 4 aircraft program teams to build a project-summary poster; presented internship work to leadership.

Undergraduate Research Lead | USC Combustion Propulsion Lab Aug 2023-Present

- Conducted 100+ turbulent-flow and algae-growth experiments over 6+ months for NSF-funded biofuel research under Dr. Paul Ronney; analyzed data in MATLAB and Python.
- Redesigned key subsystems of a Taylor-Couette apparatus to improve reliability and experiment throughput; helped diagnose and repair a loose 120 V-to-24 V transformer connection that had sparked and melted components.

ENGINEERING PROJECTS & TECHNICAL TEAMS

SPUR | Thermoelectric Energy Recovery | USC Senior Capstone Aug 2025 - Dec 2025

- Fabricated and assembled nearly all of the test rig (a teammate designed the cover) through stock cutting, press fits, deburring, and finishing; produced the school machinist's drawing package.
- Refined thermoelectric test-rig designs with the school machinist and evaluated material and cost trade-offs with a teammate.
- Built LabVIEW data acquisition with mentor guidance to log thermocouple temperatures and voltage (converted to power); plotted test results in MATLAB.

Centrifugal Governor FEA | USC AME 408 Spring 2026

- Ran SolidWorks Simulation stress and deflection trade studies across governor geometry variables; supported a final design at 1,738 MPa max stress (2,200 MPa limit) and 1.017 mm deflection (1.25 mm limit) at 7,000 rad/s.

Aerodesign Team | USC Formula Electric Racing Jan 2023 - Aug 2024

- Helped fabricate carbon fiber aero body panels by hand lamination and vacuum bagging; ran Siemens NX FEA on vehicle structures for performance and manufacturability.
- Resolved a body-panel mounting mismatch that prevented bolt installation, allowing the panels to be installed without scrapping them.

Aircraft D Conceptual Design | USC AME 481 Capstone Spring 2026

- Contributed to a 201-passenger, 2,006-nmi, Mach 0.75 conceptual airliner in JetSizer-II, covering cabin layout, wing and tail sizing, propulsion, and mission performance trade-offs.

ADDITIONAL WORK EXPERIENCE

Engineering Intern | Unconventionals Natural Gas, Dallas, TX Summers 2023 & 2025

- Built Python tools converting 7,000+ well PDFs to CSV and mapped 254 well paths in ArcGIS, recovering $30K+ in revenue and saving 3 hours per township across 20 townships.

LEADERSHIP & HONORS

Leadership and honors: President and VP Finance, USC Family Business Society; Eagle Scout; Order of the Arrow. Certifications: ISCET Electronic Systems Associate (Level 1); OSHA Safety Certification.