

Daniel Rasas

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Education

University of California, Davis

Bachelor of Science in Chemical Engineering, UC GPA: 3.69

Expected: Jun 2026

Work Experience

PBF Energy (Martinez Refining Company)

Process Safety Engineering Intern

Martinez, CA

Jun - Sep 2025

- Revalidated 14+ pressure relief valve sizings to current API standards using Python and HYSYS
- Identified root cause of hydrotreater exchanger fouling via feed sampling, worked with vendor to identify anti-foulant injection site, and developed tool to monitor effectiveness
- Validated operating conditions and procedures for a Process Hazard Analysis on our dimersol unit
- Performed mechanical inspection inside vessels, verified proper installation of bubble caps

PBF Energy (Martinez Refining Company)

Process Engineering Intern

Martinez, CA

Jun - Sep 2024

- Designed operational solutions to mitigate \$410k/yr delayed coker wash oil spray fouling issue
- Coordinated NDAs with 2 new vendors to solicit design improvements
- Built unit trend monitors to predict spray header fouling using Seeq
- Identified and safely resolved 550 duplicate Honeywell control system points

Thermo Fisher Scientific

Process Chemistry Intern

Vilnius, Lithuania

Jun - Jul 2023

- Synthesized organic compounds of biological origin
- Operated under GMP clean room and manufacturing procedure regulations
- Performed HPLC analysis and prepared NMR samples
- Collaborated in English and Lithuanian with colleagues from several Eastern European countries

Academic Experience

UC Davis

Engineering Ambassador

Sep 2023 - Present

- Represented the College of Engineering at outreach and industry events
- Led tours of our workshops, labs, and lecture halls to groups of 20+ students and family

Chemical Engineering Cap

Stopping Team Lead

Oct 2023 – Apr 2025

- Led a team of 12 engineering students to build a reaction-controlled stopping mechanism
- Experimentally determined kinetics of catalytic H₂O₂ decomposition
- Built a safe, low-cost pressure vessel using 1/4" plumbing
- Placed 4th out of 16 teams at the 2024 AIChE Western Student Regional Conference
- Used C++ and Python to code an arduino microcontroller and process pressure data

Chevron Peer Tutor

Oct - Dec 2024

- Tutored material balance concepts to struggling students in-person
- Paid tutor as part of the Chevron Tutoring Program at UC Davis

Awards

2022-23 First Year Student Recognition Award

American Institute of Chemical Engineers

- Voted as most involved in the UC Davis AIChE student chapter

J./D. Child, S. Whitaker, & Wasson Family Scholarships

UC Davis

- Recognition of academic merit in the Chemical Engineering Program

Skills

Python, HYSYS, Seeq, Aspen Plus, Excel, Fusion360, Six Sigma, Honeywell Trace