

# AINSLEY JADE DORATAN

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## EDUCATION

### University of California, Los Angeles

Expected Jun 2026

BS in Chemical Engineering, Biomolecular Concentration. GPA: 3.82.

## PROFESSIONAL EXPERIENCE

### Applied Medical

Jun 2025 – Aug 2025

#### Process Engineering Intern

- Apply lean six sigma principles to propose a CapEx project that reduces scrap by 13%.
- Create and implement root cause analysis projects to identify and communicate reasons for nonconformances.
- Investigate material properties and processes to troubleshoot daily production issues and assist in tool repairs.
- Read SolidWorks drawings and assemblies using GD&T to build automated in-process inspection measurement programs.
- Technical writing in documentation such as validation protocols (IQ, OQ, PQ) and work instructions.

### American Institute of Chemical Engineers at UCLA

Sep 2022 – Present

#### President

- Manage a cross-functional team of 30 to plan 150+ events, developing leadership and organizational skills.
- Oversee conference travel planning, budgeting, and vendor communication to ensure safety and affordability for members.
- Spearhead a streamlined process to expand accessibility and promote efficiency for students joining research experiences.
- Awarded Outstanding Student Chapter by the global AIChE organization, a recognition given to the top 11% of chapters.

#### External Vice President

- Led 21 total chapter professional development and company info sessions with a co-External Vice President.
- Coordinated career fair using oral and written communications with 12 companies and over 230 student attendees.
- Initiated outreach to form new relationships with 45% of sponsors and secured more than \$13,000 of club funding.

### Los Angeles Metro

#### Student Intern Team Leader

Jun 2021 – Aug 2021

- Oversaw team of 12 interns to research ways to increase youth ridership.
- Conducted survey of 150 key stakeholders and Metro employees to create presentation.
- Awarded 1<sup>st</sup> place for project and selected to present graduation speech.

## PROJECTS

### Applied Medical

Jun 2025 – Aug 2025

#### Moisture Analysis and Particle Separation

- Use a moisture analyzer to study the correlation between moisture and nonconformances in medical device parts.
- Conduct FMEA to create a DOE investigation of virgin material and colorant separating after traveling through a vacuum.
- Create a process flow diagram to propose solutions that simultaneously address both issues.

#### Tensile Testing

- Perform root cause analysis using process mapping to eliminate material degradation as a potential cause of breaking parts.
- Set up and use a Mecmesin force tester with ASTM-standard dog bones to perform material characterization testing.
- Build an Excel spreadsheet that automates statistical analysis of tensile test data.

### Wright Lab at UCLA

Mar 2023 – Jun 2025

#### Stability of Protein Polymer Bioconjugates

- Assisted in writing section of published review article on applications and advantages of protein-polymer bioconjugation.
- Prepared polymers using free radical polymerization techniques.
- Performed BCA and activity assays, gel electrophoresis, and differential scanning fluorimetry to monitor conjugate stability.

### American Institute of Chemical Engineers at UCLA

Oct 2022 – May 2024

#### Chem-E-Car

- Designed and built a chemically controlled shoebox-sized car that placed 3<sup>rd</sup> at regional competition.
- Analyzed practicality and EH&S risks of chemical powering mechanism by researching procedures and writing SOPs.
- Planned, executed, and analyzed lab experiments testing multiple battery chemistries to maximize voltage output.

#### Chemical Engineering Introductory Project

- Researched, designed, and built fully functioning coffee machine from scratch collaboratively with a cross-functional team.
- Utilized critical thinking skills in solving problems related to machine structure.
- Awarded 1<sup>st</sup> place out of 7 for machine and presentation of process flow.

## SKILLS

- Microsoft Office Suite, SAP, Keyence, Injection Molding, MATLAB, Python, Mandarin Chinese.
- Experiment design and execution using chromatography, spectroscopy, extraction, crystallization, pipetting, and centrifuging; buffer preparation, and equipment calibration.