

Daniel Ormsbee

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SUMMARY

Mechanical engineering & molecular biology student with a record of exceptional achievement, a reputation for innovative thought, analytical/critical thinking, and a passion for hard work. Additional skills include:

<ul style="list-style-type: none">• Executive Communication• Project Management• Systems Analysis & Thinking	<ul style="list-style-type: none">• Fermentation/Bioprocessing• Process Engineering• Liquid Chromatography	<ul style="list-style-type: none">• Process Design & Improvement• AutoCAD, Solidworks• Python, Microsoft Excel
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EDUCATION

Cedarville University - an ABET-accredited comprehensive university in southwestern Ohio serving more than 5,000 undergraduate and graduate students

BS Mechanical Engineering; GPA: 3.60 ; BS Molecular Biology; GPA: 3.60

Anticipated 05/2026

Honors: Dean's List (all semesters); President's Scholarship

EXPERIENCE

Work Experience:

AFRL/STI Tech Customizable Pilot Helmet - Senior Design Team

Cedarville, OH

Team Lead - Computational Pipeline SME

08/2024–05/2025

- Created project timeline, objectives and tasks for 4-person engineering design team.
- Design, built, and implemented computational systems for facial scan data analysis and head mass calculations using machine learning, regression, and data-management principles (python, MATLAB, statistical analysis).
- Designed, built, and tested pilot helmet test-bed with movable Center of Gravity (CG) for AFRL customer.
- Communicated and managed product development with STI Tech contacts and engineering team.

Wake Forest Institute for Regenerative Medicine (WFIRM)

Winston-Salem, NC

NIH Funded Summer Scholar

05/2024–08/2024

- Scaled-up and characterized Urinary Stem Cell (USC) cultures in bioreactors for the extraction of exosomes as a future therapeutic for Chronic Kidney Disease (CKD).
- Presented research at NIH NIDDK undergraduate conference at the University of Virginia.

Campus Experience: Student Government Association (SGA)

Cedarville, OH

Student Body Vice President

08/2023–05/2024

- Co-led an organization of 36 people with an annual budget of over \$100,000.
- Responsible for more than 60 projects and events under SGA's purview.
- Proposed, organized, and led a restructuring/optimization effort for SGA which included writing new procedures, evaluating position eliminations, and reallocating financial and human resources
- Learned and implemented KanBan charts for in-office procedures to better serve guests.

Valent Biosciences

Osage, IA

Process Engineering Intern (40hrs/week)

05/2023–08/2023

- Designed, executed, and presented to management a \$1-2 million value-add, process-improvement parametric study to determine parameters influencing separation resolution in production ion-exchange columns that involved over: 40 elutions, 80 Excel data dashboards, 1000 elution samples, and 500 HPLC samples.
- Excelled at Design of Experiments (DOE) and systems analysis, while learning Statistical Process Flow.

Projects and Publications:

Cedarville, OH

Mechanical Engineering Labs

08/2021–Present

- Wrote twelve, 40+ page engineering reports covering projects & experiments in: steady-state heat transfer, vibration modes of rigid bodies, 3D stress analysis of pressure vessels, refrigeration systems, pipe flow, and heat treatment of engineering alloys.

Personal Bioproduct Research - Independent Education on Bioprocessing and HVP Metabolites

- Completed preliminary TEA/screening calculations for personal bioprocess ideas.
- Created prototype process models to explore bioprocess possibilities.
- Compiled list of bioproducts and HVPs from microbial, fungal, and algal metabolites.