

# ALEXANDER “AJ” JEFFERSON

## ENGINEERING STUDENT

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### EDUCATION

#### Honors Associate of Science

– May 2025

*Honors College at Lonestar College-University Park | Tomball, TX*

- GPA of 3.94
- STEM GPA of 4.0

### RESEARCH INTERESTS

Water and Wastewater Treatment; Energy Storage; Computational Fluid Dynamics.

### RESEARCH EXPERIENCE

Stream of Change: Unraveling Pre-Drought Water Quality Dynamics using the Spearford Gully

Fall 2023

- Research on water parameters' response to lack of rainfall before drought recognition
- Honors Environmental Geology; Mentor: Bryn Benford

A Drone-Based Analysis of Spearford Gully Erosion and Rainfall Correlation

Spring 2024

- Research on drone capability when measuring annual erosion
- Honors Physical Geology; Mentor: Bryn Benford

Ecohydrology of Tropical Montane Forests REU

Summer 2024

- 10-week Texas A&M University research program in Costa Rica and College Station, TX
- Focuses on CFD simulation validation of environmental effects of the formation of biofilm
- Mentor: Yinuo “Noah” Yao

### RESEARCH PRESENTATION

Gulf Plains Honors Conference

March 2024

*Oklahoma State University* (Oral Presentation)

Geological Society of America

May 2024

*Anaheim, CA* (Poster Presentation)

American Geophysical Union

December 2024

*Washington, D.C.* (Poster Presentation)

### SPECIAL INVOLVEMENT

NASA Community College Aerospace Scholars

September 2023 –

- Mission I (August 2024 - September 2024) Attended weekly subject matter expert meetings over a 5-week course followed by knowledge assessments and a final project.

Academic Peer Coach

**September 2024 –**

- Works under Lone Star College-University Park's Center for Science and Innovation
- Assists students with understanding course material, preparing for exams, and completing assignments for GEOL1403 and GEOL1405

National Model United Nations

**October 2023 –**

- Assumes the role of delegates while debating topics such as climate action, global healthcare, and gender equality
- 2024 Outstanding Delegation Award

Honors College Leadership Program

**September 2023 –**

- Public Relations Coordinator
- Manages a team of three leads
- Recruits incoming students to the honors college
- Maintains relationships with external sources

Rice Take Flight Program

**September 2023 –**

- A partnership between Rice University, San Jacinto College, and Lone Star College to expand education access and increase the number of students who complete STEM degrees.

Phi Theta Kappa

**May 2024 –**

- Beta Upsilon Nu Chapter

Association of Environmental and Engineering Geologists

**March 2024 –**

- Member of the Texas Chapter

## **AWARDS**

Lone Star Honors College Chancellor's Fellows Scholarship

**Summer 2023 –**

- Scholarship provided to honors college students who display extreme discipline and motivation
- Funds an international capstone trip following graduation

GHCF Pi-Squared Scholarship Recipient

**Summer 2023**

- Financial award granted to STEM scholars in the Greater Houston Region

Lone Star College Chancellor's Essay Contest Winner

**Fall 2023**

- Yearly contest on narrative essay
- Presentation of the essay at the Lone Star College Chancellor's Donor Appreciation Lunch

Commitment to Excellence All-Star Student Award

**Spring 2024**

- Recognized for demonstrating outstanding commitment to personal growth and adaptability during the transition to college life.