Mia R. Shepherd

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EDUCATION

Southern University and A&M College, Baton Rouge, LA
Bachelor of Science in Mechanical Engineering, **3.55/4.0** GPA Expected Fall 2027

SKILLS AND SOFTWARE PROFICIENCIES

Software: Microsoft Office Suite • C++ • SEEQ • SolidWorks (Beginner)| Standards: ASME B16.5 • ASME PCC-1

WORK & LEADERSHIP EXPERIENCE

May 2026 – Present **Georgia Tech Carbon Management Fellows Program** Hybrid
Fellow

- Developed a process flow diagram integrating a combined-cycle power plant with an MEA-based carbon capture system to evaluate retrofit opportunities.
- Collaborated with fellows from multiple universities and academic disciplines to develop carbon management recommendations for a power generation case study.
- Evaluated 3 carbon capture technologies: amine-based, chilled ammonia, and physical solvent systems.

May 2025 – August 2025 **ExxonMobil** Baton Rouge, LA
Static Equipment Intern

- Designed SEEQ dashboards for PSLA furnaces (7-10) to combine TMT trends and key KPIs for equipment health monitoring across Mechanical Integrity, Process Technical, and Fired Heater teams
- Developed and authored an official MOV torque procedure for PHLA-2 reactor flanges to improve safety and standardize torque practices.
- Verified 30+ heat exchanger data sheets for the West Coker and PSLA-9 units, ensuring accurate pressure, torque, and weight values for inspection and reliability planning.

August 2024 – Present **L.I.G.O Science Education Center** Livingston, LA
Docent

- Delivering 40+ hours of STEM education to K-12 students, explaining gravitational-wave science.
- Leading monthly Science Saturdays, engaging 50+ students and participating in STEM outreach at local schools.
- Collaborating with LIGO and Exploratorium staff to improve STEM education and outreach efforts.

June 2024 – August 2024 **C.R.E.S.T REU** Baton Rouge, LA
Research Assistant

- Designed a supercritical CO2 extraction chamber, selected plant samples, and supported research development.
- Annotated five weekly scholarly articles, contributing to a CO2 extraction bibliography.
- Collaborated on building an extraction machine and assisted with quality control measures.

ACTIVITIES & HONORS

• Jaguar Battalion – **MSIV Cadet**
• The National Society of Black Engineers (REB) – **T.O.R.C.H. Chair** – (CEB) Engineers – **Comms Chair 2024 –25 - Programs Chair 2025-26**
• ExxonMobil Pilot Program – **Scholar**
• Society of Women Engineers – **Vice President 2026-27-** Comms Chair 23-24 - Sophomore Rep 24-25 – Programs Chair 25-26
• Dr. Dolores Spikes Honors College – **Scholar**
• Top Jag Program – **Scholar**
• 2025 Turner Construction Tuition Assistance Recipient
• 2024 Chevron Energy Innovation Summit Third Place Recipient
• 2024-26 Deloitte Foundation SWE Scholarship Recipient
• 2023 UNCF Lam Research Scholarship Recipient
• 2023 Fund II Foundation Hometown Hero Recipient