

Addison Fowlkes

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EDUCATION

Texas Tech University, Lubbock, Texas
Bachelor of Science in Mechanical Engineering

Graduation: August 2026
GPA: 3.22

EXPERIENCE

Sacyr, Lubbock, Texas
Field Engineer

January 2025 – August 2025

- Optimized the concrete pouring schedule by creating a Gantt chart that tracked 40+ sections and automatically flagged conflicts with the mandatory 3-day adjacent curing time, ensuring project efficiency and organization.
- Documented and managed all the electrical inventory and installations, ensuring milestones were hit on time.
- Instructed 2 foremen and several subcontractors on daily tasks ensuring work was being completed properly.
- Conducted comprehensive cost analysis of MSE retaining walls and mainline construction on the Lubbock South Loop to yield savings on an upcoming 2-billion-dollar project in Louisiana.
- Assumed full production/field engineer responsibilities independently across two separate projects, Lubbock South Loop and 19th Street, covering one month each during personnel gaps.

LyondellBasell, Houston, Texas
Reliability Engineering Co-Op

August 2024 – December 2024

- Developed engineering scope for reinstallation of a furnace exhaust stack, allowing for an organized schedule and a list of all tasks that needed to be completed.
- Eliminated hazardous steam condensate spray and recurring pipe shearing by redesigning piping geometry.
- Completed an intensive week-long hands-on training operating scaled plant models covering valves, piping, instrumentation, distillation, exchangers, pumps, and steam systems.
- Worked with Mumbai engineering team on modeling and calculations for several projects which led to hydraulic and stress analysis reports.
- Collaborated with on-site technical professionals, including engineers, inspectors, and surveyors, to develop a practical understanding and implementation of field operations, quality control, and construction processes.
- Organized and led a cross-disciplinary facility tour of LyondellBasell Channelview for 10 co-ops, coordinating electrical, production, and mechanical engineers to each present their respective systems across all plant units.
- Evaluated MAWP ratings on 40+ pressure vessels against minimum design metal temperatures, flagging several units as potential brittle fracture risks for engineering review ahead of low-temperature seasonal operations.

Caprock Aoudad Outfitters, Fluvanna, Texas
Guide/Social Media Assistant

February 2019 – October 2022

- Communicated with clients of varying hunting experience levels, adjusting guidance accordingly.
- Fostered positive connections with every client, leading to 15+ return hunters.

PERSONAL PROJECT EXPERIENCE

Pickleball Paddle (*personal project*)

June 2023 – August 2025

- Analyzed carbon fiber vs. honeycomb aluminum for strength-to-weight optimization and performance.
- Utilized Inventor Professional to design 3D models and conducted stress analysis and mass property analysis to ensure paddle longevity and usability.
- Facilitated design reviews with faculty subject matter experts to iterate on structural integrity and vibration damping for initial prototype development.

Unreal Engine 5 (*personal project*)

May 2023 – August 2024

- Utilized Cesium and Google Maps API to generate a landscape of Texas Tech Campus as well as Raiders Pass Apartments Complex.
- Optimized the graphics/rendering methods to fix crashing issues which increased the performance by 125%.
- Imported assets created from scratch using Blender which allowed realism and the user to walk around.

Skills

Design & Modeling: Inventor Professional, GD&T, Blender, Unreal Engine 5

Analysis & Software: P&IDs, Excel, Python, MATLAB

Field Engineering: Gantt Scheduling, Cost Estimation, Quality Control/QA, Electrical Inventory Management