

# Emily Collier

ecollier@tamu.edu | 210.882.7027 | linkedin.com/in/emilycoll

## EDUCATION

**Texas A&M University, Mays Business School**  
*Master of Business Administration*

College Station, Texas  
August 2025

**Texas A&M University, College of Engineering**  
*Bachelor of Science in Chemical Engineering*

College Station, Texas  
May 2024

## EXPERIENCE

### Valero Energy Corporation

*Process Optimization & Support Intern*

San Antonio, Texas  
May 2024 – June 2024

- Identified constraints on alkylation process by researching data set outliers to optimize propane handling which suggested decrease in depropanizer reflux by 50%.
- Led efforts to decrease sulfur into refinery alkylation unit; calculated impact of \$0.5M/year of acid consumption derived from sulfur.
- Researched controller oscillations on mercaptan removal towers by trending temperature, pressure, and flow rates to discover pressure control valve operating 100% open intermittently indicating improper tower control.

### Valero Energy Corporation

*Technical Engineering Intern, Subject Matter Expert Group*

San Antonio, Texas  
May 2023 – August 2023

- Calculated financial benefit of using SOx reduction additive in fluidized catalytic cracker through trial period for potential \$500k/year gain.
- Managed benchmarking of all fired heaters within 15 total plants against minimum mechanical requirements.
- Performed quench water analysis on fluidized catalytic cracking unit with Trendminer software to isolate less than five dependent variables.

### Valero Energy Corporation

*Process Engineering Intern*

Houston, Texas  
May 2022 – August 2022

- Located all 10 plus refinery flare wireless transmitters and produced process flow diagrams to map locations using piping and instrumentation diagrams.
- Installed temperature transmitter for monitoring U-value on heat exchanger to predict fouling about six months in advance.
- Utilized pressure and volume field data to calculate new ranges for flow controllers ultimately optimizing plant alkylation unit.

## LEADERSHIP & INVOLVEMENT

### American Institute of Chemical Engineers (AIChE)

*Internal Director*

College Station, Texas  
September 2020 – August 2023

- Managed and organized weekly meetings to plan and execute annual AIChE Sophomore Retreat within fundraised budget of \$25k.
- Developed team to increase outreach and recruit over 100 chemical engineers.

### Aggie Recruitment Committee

*Registration Coordinator*

College Station, Texas  
August 2021 – August 2022

- Organized and executed registration technology for two annual outreach conferences.
- Directed a registration committee to develop best practices in recruiting over 200 high schoolers

## SKILLS, ACTIVITIES & INTERESTS

**Technical Skills:** Python, Excel

**Activities:** Freshman Leaders on Campus, The Big Event, Adopt a Street, Aggie Southern Darlings, John 15, Food Bank Volunteer, Intramural Sports, Whoopin' Weekend, Seniors Experiencing Aggie Life

**Interests:** Building Connections, STEM Volunteering, Problem Solving, Texas A&M Sports