Jeanney Munoz

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Summary

Determined | Passionate | Team-Player | Problem-Solver

A motivated and passionate emerging scientific engineer with a strong foundation in problem-solving and scientific analysis. Experienced in chemical synthesis and resource recovery processes. Thrives in dynamic environments, bringing resilience, creativity, and a result-driven mindset to collaborative teams.

Skills

Laboratory: Water Quality Analysis (pH, Turbidity, Oil and Grease Method, Boron Testing TNT), TDS Analysis, Membrane coupon testing, Membrane module testing and inspection, Molecular organic and inorganic synthesis, the use of NMR, Glovebox operation, and Spectroscopy (UV-Vis, IR, CD)
Computer Software: ENVERUS, @Risk, MasteringNova, Autodock
Programming Languages: Python and R
Protein Characterization: Purification and characterization using affinity, size-exclusion chromatography and SDS-PAGE
Languages: English (Fluent), Spanish (Intermediate)

Research Experience

Engineering Intern at Active Membranes, Moorpark, CA — May 2025 - Aug 2025

- Tested and evaluated reverse osmosis (RO) membranes for water treatment applications; analyzed performance and durability data while assisting with lab operations including sample preparation, monitoring system parameters, and QA/QC inspections.
- Contributed to the development of novel chemical formulations for desalination membrane coatings addressing fouling and scaling challenges.
- Supported the development of selective desalination membranes for brine mining applications enabling recovery for critical minerals

Graduate Student Researcher at Texas A&M University, College station, TX — Jan 2023 - Jan 2024

- Conducted research on the mechanical characterization of iron-sulfur clusters, refining intermediates and molecular mechanisms.
- Reviewed literature and formulated research aims to characterize and incorporate different proteins within complex systems.

NSF Scholar, Undergraduate Researcher at Cal. Poly, Pomona, CA — Aug 2021 - May 2022

- Synthesized and evaluated Bisbenzylisoquinoline (BBIQ) compounds for potential refining applications
- Designed multi-step synthetic routes and analyzed outcomes to improve compound performance.
- Developed and submitted a full research proposal based on independent findings.

Work Experience

Graduate Teaching Instructor at Texas A&M University

Teaching Assistant; General Chemistry — Aug 2022 - Present

- Instructed undergraduate students weekly on general chemistry topics and laboratory techniques.
- Prepared lessons and led weekly review sessions to clarify complex concepts and improve academic performance.

Teaching Assistant; Petroleum Engineering — Jan 2025 – May 2025

- Guided senior petroleum engineering students through capstone design projects, emphasizing industry standards and practical applications.
- Delivered tutorials and supported geological assessments for petroleum reservoir evaluations.

Activities & Awards

Awards: Chevron Graduate Scholarship (2025), Graduate Strategic Support CHEM Scholarship (2022), Research Distinction Certificate (2021)

Activities: Member of Society of Petroleum Engineers (2025-Present), Student Member of American Chemical Society (2021-2022), Student Member of Science Educational Enhancement Services (2019-2022)

Education

Texas A&M University, College Station, Texas
Master of Science in Petroleum Engineering **Expected Dec 2026**
Relevant Coursework: Formation damage, hydraulic fracturing, production optimization, carbon capture, lifecycle analysis and alternative fuels.
GPA: 3.50/4.00

Master of Science in Chemistry **Dec 2024**
Relevant Coursework: Thermodynamics, Data Analysis, Spectroscopy, Biosynthetic pathways and General chemistry techniques within a lab
GPA: 3.71/4.00

California State Polytechnic University, Pomona, CA **May 2022**
Bachelor of Science in Biology and Chemistry with an emphasis in Biochemistry
GPA: 3.34/4.00