

Ricardo Ortiz

ricardo.ortiz@utexas.edu | (915) 408-6057 | linkedin.com/in/ricardoalbertoortiz

EDUCATION

The University of Texas at Austin <i>Cockrell School of Engineering</i>	Bachelor of Science <i>Chemical Engineering – Business Leadership Track</i> GPA: 3.2/4.0	May 2026
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EXPERIENCE

Samsung Austin Semiconductor – <i>Process Engineer Intern, CMP MOL</i> ; Austin, Texas	May 2025 – August 2025
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- Designed an Excel-based simulation model with historical process data to implement feedback control (iAPC), reducing thickness deviations by ~15% and improving product reliability
- Standardized RTPC calibration across 20+ CMP tools using TEMS as reference, ensuring consistent thickness measurements across tools and alignment of process outputs
- Implemented early defect detection workflows using NPW wafers, capturing defect data ahead of production, reducing risk of wafer scrap and saving ~\$250K annually

Dr. Landaverde-Alvarado Lab – <i>Product Development Engineer</i> ; Austin, Texas	January 2025 – May 2025
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- Repurposed laboratory plastic waste into functional products for campus labs by prototyping extrusion and shredding processes and assessing feasibility of campus-scale production
- Built and validated life cycle and emissions models to optimize material selection and quantify environmental and economic trade-offs in recycling pathways
- Contributed to sustainable product innovation strategy, informing capital planning for a closed-loop waste management system

Valero Energy Corporation – <i>Process Controls Engineer Intern</i> ; Three Rivers, Texas	May 2024 – August 2024
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- Led a capital improvement project to upgrade tank instrumentation; developed implementation plans, obtained vendor bids, and coordinated installation, reducing overflow risk by ~400% and improving operational safety
- Designed and deployed new control logic in the Honeywell Experion system by integrating O2 and temperature feedback loops; reduced heater trips and avoided shutdown losses exceeding \$15K per event
- Oversaw installation of high-priority pressure transmitters, enhancing process accuracy and risk mitigation for critical refinery operations

Ramshorn – <i>Academic Coach/ Tutor</i> ; Austin, Texas	May 2023 – May 2024
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- Mentored engineering students in chemistry and calculus, providing study strategies and career advice to support their academic success and professional growth

R&O Pressure Washing – <i>Co-Owner</i> ; El Paso, Texas	May 2021 – August 2021
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- Co-founded and successfully launched a pressure washing company, generating approximately \$3,500 in revenue, while initiating operations with an initial investment of \$550
- Expanded business outreach through strategic flyer campaigns, yielding 19 new customers from the distribution of 400 flyers

LEADERSHIP EXPERIENCE AND ACTIVITIES

Student Engineering Council (SEC) – <i>Corporate Chair</i>	May 2024 – June 2025
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- Secured \$50,000+ in funding by developing relationships with Fortune 500 companies; facilitated industry partnerships through strategic event planning and communication
- Led collaboration between engineering orgs and external stakeholders, enabling ~500 students to gain career exposure and professional development

Student Engineering Council (SEC) – <i>Engineering Activities Committee</i>	August 2023 – May 2024
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- Organized and executed dynamic engineering events fostering camaraderie and professional growth among 500+ students

UTeach Outreach – <i>Teacher</i>	August 2023 – December 2024
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- Designed and presented age-appropriate science curriculum to engage and educate students at local elementary and middle schools, enhancing their understanding and enthusiasm for science subjects
- Actively participated in community-based fieldwork projects, leveraging my skills and knowledge to address local needs and create positive impacts, fostering community growth and sustainability

ADDITIONAL INFORMATION

Technical Skills: DCS, PLCs, Honeywell Experion, Excel, Word, MATLAB, SolidWorks, Python (Pandas, SQL Integration)

Languages: Fluent in Spanish and English

Interests: Triathlons, Guitar, Fiction Reading, Formula 1, Travel

Skills: Data analysis, anomaly detection, capital project planning, risk mitigation, operational optimization, technical communication

Organizations: SEC (Student Engineering Council), AIChE (American Institute of Chemical Engineers), and SHPE (Society of Hispanic Professional Engineers)

Awards: Bruce and Sharon Thornton Scholarship in Engineering, Hispanic Scholarship Fund Scholar, ULN Scholar recipient (University Leadership Network)