

Michael Zepeda

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Chemical Engineer

Chemical Engineer with experience in process development, automation, controls, calibration, manufacturing, and project engineering. Skilled in PLC systems, process optimization, troubleshooting, and commissioning. Passionate about improving industrial processes through practical engineering solutions and continuous improvement.

WORK EXPERIENCE

Industrial Maintenance Specialist

Novolex

Bridgeview, IL • 09/2025 - 12/2025

Novolex manufactures a range of plastic products in Chicago, IL, using polymer melt extrusion to form finished goods.

- Performed maintenance on grinders, crystallizers, extruders, formers, and trim press.
- Documented all work performed in maintenance logs and CMMS (Computerized Maintenance Management System).
- Followed all safety procedures, lockout/tagout protocols, and company policies.
- Rebuilt blow by valves, balance cylinders, motor-pump adapters, toggle arms, and exhaust filters.

Calibration Engineer

CSL Behring

Bradley, IL • 02/2024 - 07/2024

CSL Behring produces biotherapeutic therapies for rare and serious diseases, including immunodeficiencies and bleeding disorders.

- Provided calibration support to maintain operational continuity, performing maintenance and compliance tasks for metrology instruments.
- Identified root causes of instances where metrology instruments deviated from tolerance, and carried out risk assessments for quality events.
- Managed documentation of readings from metrology reference instruments and tracked deviations from standard instruments.

Graduate Assistant

University of Illinois Chicago (UIC)

Chicago, IL • 08/2020 - 09/2023

The University of Illinois Chicago's Chemical Engineering Department delivers rigorous training and interdisciplinary research in chemical engineering.

- Published peer-reviewed research advancing the understanding of electrolyte modeling and CO₂ surface reduction mechanisms.
- Pioneered simulation techniques to explore solid electrolyte interface dynamics, informing future material design strategies.
- Served as a graduate teaching assistant for undergraduate chemical process control course and microbiology courses, handling grading and weekly office hours.

Lab Supervisor

Tradebe Environmental Services

East Chicago, IN • 11/2019 - 07/2020

Tradebe Environmental Services in East Chicago, IN provides industrial and hazardous waste treatment, recycling, and disposal services.

- Prepared shift summaries, reported experimental results, troubleshoot and calibrated instruments.
- Measured chemical and physical properties of incoming material using instruments like HPLC, mass spectrometry, calorimetry, and wet chemistry.

EDUCATION

Master of Science in Chemical Engineering

University of Illinois Chicago • GPA: 3.67

Chicago, IL • 01/2020 – 12/2023

Bachelor of Science in Chemical Engineering

University of Iowa • GPA: 3.08

Iowa City, IA • 08/2016 – 05/2019

CERTIFICATIONS

Engineer in Training

National Council of Examiners for Engineering and Surveying

06/2021