JULIAN MERCER

CHEMICAL ENGINEER

San Francisco, CA | (415) 555-0148 | julian.mercer@email.com | linkedin.com/in/julianmercer

PROFESSIONAL SUMMARY

Chemical Engineer with 11+ years in process development and plant support across specialty chemicals, polymers, and consumer products. Scales lab recipes to production, improves yield and safety, and leads investigations that restore stable operation.

CORE SKILLS

Process scale-up | Aspen Plus | HAZOP and PHA | Mass and energy balances | Distillation and reaction engineering | Statistical process control | Yield improvement | Management of change | P&ID review | Pilot plant operation | Root cause investigation | Heat integration | Minitab | Batch process design

PROFESSIONAL EXPERIENCE

Process Engineering Lead Mar 2022 - Present
Eastman Chemical Company, Kingsport, TN

- Lead process engineering for a copolyester line, raising yield 2.8 points by retuning reactor temperature profiles and catalyst dosing.
- Chaired HAZOP reviews for a new distillation column and closed 31 action items before startup.
- Cut steam use per ton of product by 9% by rebalancing heat exchanger duty with the energy team.

Process Engineer Feb 2018 - Feb 2022
BASF, Florham Park, NJ

- Scaled a coating additive from a 20-liter pilot run to a 6,000-liter batch, holding product specifications on the first three production lots.
- Built mass and energy balances in Aspen Plus that located a recycle loss, recovering roughly $240,000 of raw material a year.
- Investigated a recurring viscosity deviation using statistical process control and corrected a feed sequencing problem that caused it.
- Trained operators on revised batch procedures and reduced off-spec batches from 7% to 3%.

Process Development Engineer Aug 2015 - Jan 2018
Dow, Midland, MI

- Ran pilot plant trials on a polyol process and documented operating windows that fed into the commercial design package.
- Analyzed gas chromatography and rheology data for 45 trial runs and recommended the two best catalyst candidates.
- Prepared management of change documents for three equipment modifications with no recordable safety events.

Product Engineer, Operations Rotation Jun 2013 - Jul 2015
Procter & Gamble, Cincinnati, OH

- Supported a liquid detergent line by tracking mixing time and fill weight, and trimmed giveaway by 0.6% across the shift.
- Wrote a startup checklist for a new blending tank that line teams used for every changeover.

EDUCATION

B.S. in Chemical Engineering, University of Michigan, Ann Arbor, MI

CERTIFICATIONS

Professional Engineer (PE), Chemical | Six Sigma Green Belt