



DYLAN ERNST STAFF ENGINEER

CREDENTIALS

- ◆ B.S. Chemical Engineering, University of Kentucky, 2025
- ◆ Environmental Engineering Certificate, University of Kentucky, 2025
- ◆ Distillation, Wine, & Brewing Studies Certificate, University of Kentucky, 2025
- ◆ Lean Systems Student Certificate, University of Kentucky, 2024
- ◆ HAZWOPER 24-hr Certification, 2025

PROFESSIONAL EXPERIENCE

- ◆ May 2025 – Present: ALL4 LLC, Lexington, KY – Staff Engineer
- ◆ May 2024 – August 2024: Heaven Hill Brands, Bardstown, KY & Louisville, KY – Chemical Engineering Intern
- ◆ May 2023 – July 2023: University of South Carolina, Columbia, SC – Undergraduate Researcher
- ◆ May 2022 – August 2022: Milestone Design Group, Inc., Louisville, KY – Computer-Aided Design & Drafting Technician

TECHNICAL EXPERTISE

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| ✓ Air Emissions Modeling via Emission Master | ✓ Groundwater and Soil Sampling |
| ✓ Wastewater Treatment Modeling via WATER9 | ✓ Toxic Release Inventory (TRI) Reporting |
| ✓ Aspen Plus | ✓ Hazardous Waste Manifesting, Shipping, and Receiving |
| ✓ AutoCAD LT | ✓ National Pollutant Discharge Elimination System (NPDES) Permitting |
| ✓ Carlson | ✓ Minor/Major Source Air Permitting |
| ✓ MATLAB | ✓ Semi-annual Monitoring Reporting |
| ✓ Autodesk Fusion 360 | |
| ✓ COMSOL | |

PROFESSIONAL OVERVIEW

Mr. Dylan Ernst graduated from the University of Kentucky in May of 2025 with a Bachelor of Science in Chemical Engineering. During his studies, Dylan worked on the design of a fully-integrated dry kibble manufacturing facility, focusing on process modeling and optimization to improve moisture control, extrusion conditions, and thermal efficiency – enhancing product consistency, energy use, and sustainability. He also led the process design for an industrial-scale monoisopropylamine production facility, using Aspen Plus to conduct equipment sizing, mass and energy balances, and economic feasibility analyses, all while maintaining compliance with industry safety standards and environmental regulations.

Dylan joined ALL4 in May of 2025, where he supports environmental compliance and permitting efforts across a variety of industries and regulatory programs. With a strong background in process modeling and environmental systems analysis, Dylan contributes to technical complex projects including emissions and wastewater modeling and site-specific compliance strategies. Dylan has experience with environmental projects and permitting in multiple states, including Arizona, Colorado, Georgia, Illinois, Kentucky, Massachusetts, Missouri, New Hampshire, New York, Ohio, Pennsylvania, South Carolina, and Wisconsin.



PUBLICATIONS/ PRESENTATIONS

- *What's in the Proposed 2025 Ambient Air Monitoring Network Plan for Kentucky?. ALL4: 4 The Record Article (2025, Jun. 4).*
- *Evaluation of a Pelletized PSA Bed while Operating under Bed Fluidization and Expansion Conditions. American Institute of Chemical Engineers Annual Meeting (2023, Nov. 6).*
- *Session: Area Plenary: Adsorption and Ion Exchange – In Honor of Prof. James A Ritter (Invited Talks). American Institute of Chemical Engineers Annual Meeting (2023, Nov. 6).*
- *Packed Bed Fluidization Conditions throughout a 4-Step Pressure Swing Adsorption Cycle. American Institute of Chemical Engineers Annual Student Conference (2023, Nov. 6).*