

Anna Pieroni

Results-driven chemical engineer with international experience in Scotland and China. My global perspective, in addition to my research and organizational skills, complement my strong technical foundation to energy-focused engineering.

Dayton, OH
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Education

University of Edinburgh, Edinburgh Scotland — MSc Sustainable Energy Systems

Sept 2023 – Sept 2024

Courses: Principles of Wind Energy, Marine Energy, and Solar Energy and Photovoltaic Systems

Dissertation topic: *Modelling of Scaled Actuator Disk Using Star CCM+ and Tank Test Data*

University of Dayton, Dayton, OH — Bachelor of Chemical Engineering

Aug 2017 – May 2022

GPA 3.96/4.0

University Honors Program and Dean's List 2017–2022

Experience

Starbucks

Barista

Mar 2025 – Current

- Provided, fast, friendly customer service in a high-volume environment
- Prepared handcrafted beverages and food items to standard with speed and accuracy
- Maintained a clean, organized, safe, and health-compliant workspace
- Worked collaboratively to meet store goals and ensure customer satisfaction
- Stayed adaptable and efficient during peak hours while maintaining quality

Xerion Advanced Battery Corp, Dayton OH

Chemical Engineer

Aug 2022 – July 2023

- Led electroless metal plating operations for batch-scale production, ensuring consistent process parameters and high-quality deposition on target substrates
- Played a key role in R&D efforts for advanced surface coating techniques on polymer materials, focusing on performance improvement, adhesion, and durability
- Designed and implemented quality assurance and validation methods to ensure process consistency and compliance with product specifications
- Maintained a 90% success rate on the critical pre-treatment process by continuously optimizing protocols and monitoring key performance indicators
- Collaborated closely with cross-functional teams, including engineering, materials science, and production, to align project goals and accelerate innovation

Chemical Analysis Intern

May 2022–Aug 2022

- Contributed to optimization of the pre-treatment process for cathode materials, supporting improved consistency and adhesion in downstream coatings
- Improved process success rate for 30% to 90% by identifying key failure modes, refining treatment parameters, and implementing systematic testing
- Developed and documented methods for QA/QC, and process validation to ensure repeatability and compliance with performance standards

Battery Engineer Intern

Aug 2020–Dec 2020

- Developed and documented two Standards of Practice
- Designed experimentation for cathode wash
- Researched and actualized specific water content analysis

Skills

Leadership

Communication

Data Analysis and Visualization

Problem-Solving

Team Collaboration

QA/QC Development

Excel VBA

Star CCM+

Matlab

PVSyst

Awards

Raymond L. Fitz Sr. Memorial
Award of Excellence to the
Outstanding Sophomore in
Chemical Engineering – 2019

Robert G. Schenck Memorial
Award of Excellence to the
Outstanding Junior in Chemical
Engineering – 2020

Involvement

Honors Societies: Tau Beta Pi –
2020, Order of Omega – 2019

Theta Phi Alpha: President –
2021, Social Chair – 2020, General
Member 2018–2022

