Gianna Brogley

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EDUCATION

Northwestern University McCormick School of Engineering & Applied Science (Evanston, IL) Expected 2026
Expected Degree: B.S. in **Environmental Engineering**. Certificates in **Energy/Sustainability** & **Design**.
GPA: 4.00 (major), 3.51 (cumulative)
Coursework Highlights: Env. Microbiology, Chemical Transport in Water, Projects in Env. Eng., Earth in the Anthropocene, Env. Systems and Processes (WWT), Env. Law + Policy, Intro to Sustainability, Thermodynamics, Fluid Dynamics, Organic Chemistry
Projects: Completed 3 case-study projects and recommended chemical remediation solutions (Projects in Env. Eng.), built a trash-can compacting device (Design Thinking & Communication), designed and built a table out of recycled glass (Furniture Design).
Activities: *Co-president,* Environmental Engineering Undergraduate Society. *Undergraduate Advisory Board Member,* Center for Engineering Sustainability and Resilience. *Member*, Society of Women Engineers

Palo Alto High School *Editor-in-Chief* of nationally-recognized school newspaper, The Campanile | GPA: 4.27 2018 – 2022

WORK EXPERIENCE

Procter and Gamble, Research & Development Intern (Cincinnati, OH) June – Aug. 2024
Products Researcher in Personal Health Care for Vicks VapoRub, ZzzQuil, & Nervive

- Designed carbon footprint calculator for P&G Packaging that inputs the type of material and its mass and outputs the kg of CO_2 used to produce each package and the associated environmental costs. Contributed to P&G's LCA processes.
- Ran $10K consumer usage study for Nervive, observed participants in 200+ submitted videos and analyzed how peripheral neuropathy affects product experience. Provided team with insights on key moments of use, recommended improvements.
- Tested efficacy of sample VapoRub formulas with team members, conducted lab research, developed new formula versions.
- Conducted consumer research study and market assessment to make recommendations for early stages of ZzzQuil product.
- Shared results in two hour-long presentations with 20+ attendees each, including Senior VP of PHC. Received return offer.

Northwestern University, Undergraduate Research Assistant (Evanston, IL) Jan. 2023 – present
Dunn Lab (Chemical Engineering), Systems Analysis Research Group in Sustainability

- Analyze the environmental impact of novel plastic polymerization pathways from biofeeds using life-cycle modeling tool.
- Compare results to that of non-renewable pathways to illustrate cost competitiveness and sustainability of new techniques.

Hunter Lab (Chemistry), Catalysis Group

- Researched chemical compounds for a catalytic reaction that can produce H_2 fuel from seawater. Practiced filtration, purification of product, and NMR and chromatography analysis.

Stanford University, Undergraduate Research Assistant (Palo Alto, CA) June – Sept. 2023
Maher Lab (Chemical Engineering), Doerr School of Sustainability

- Performed experimental research on CO_2 capture methods in biochar (thermally treated biomass) and identified avenues of adsorption using GC-MS data. Analyzed results using Python, Jupyter Notebooks. Presented findings to lab group.

City of Brisbane, CA, Sustainability Intern (Brisbane, CA) June – Sept. 2023

- Advised property managers on strategies to reduce their building's energy and water usage, as mandated by Brisbane's Building Efficiency Program. Updated city website, supported transition to new environmental compliance software.
- Helped the City of Brisbane reach nearly 100% compliance with all properties under regulation in two months.

SKILLS

- Experience with CAD, GIS, MATLAB, Python, Jupyter Notebooks, Excel, Adobe Suite, Microsoft Office Suite, Canva.
- Solid foundation of basic wet lab chemistry techniques, aqueous and gaseous.
- Strong in writing, journalism techniques, public speaking; proficient in use of shop machines such as the mill, table saw, band saw and drill press.
- Experience with applying policies like NEPA, Clean Water Act, Clean Air Act, Endangered Species Act
- Strong collaborative and analytical problem-solving skills; great written and verbal communicator