

# Lynn (Derek) Lee

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## EDUCATION

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**Vanderbilt University** | GPA: 3.796/4.000

*Expected May 2022*

- Bachelor of Engineering in Chemical and Biomolecular Engineering
- Double Minors in Computer Science and Chemistry
- Dean's List during all semesters

## EXPERIENCE

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Gas Phase Polyethylene Process Technology Intern

*May 2021 - Aug. 2021*

**ExxonMobil Chemical** | Baytown, TX

- Achieved ~23% increase in production rates valued at \$3.6 million for five polyethylene grades by refining and calculating new operating conditions with PRO/II process simulations and coordinating with site engineers in order to retain high market share
- Headed and accelerated a desiccant change-out project by negotiating with third parties and researching new chemical products to remove oxygen and other poisons from raw material feed streams and resolve productivity swings
- Standardized slurry recirculation procedures across five global PE sites and completed pump degradation analyses

Undergraduate Data Scientist

*Aug. 2020 - Jan. 2021*

**Vanderbilt University Data Science Institute** | Nashville, TN

- Analyzed 18,000+ class action lawsuit documents, continuous, and categorical variables of interest to better determine fair attorney compensation
- Modeled and evaluated the significance of case variables by training Python natural language processing models in collaboration with local law school students

Data Science Intern

*June 2020 - Aug. 2020*

**ExxonMobil** | Spring, TX

- Reduced annual business costs by \$350k by developing and deploying a Python predictive machine learning web application with MongoDB, OpenShift, and XGBoost
- Engineered a Python web scraper to automate daily data collection from online public sources for ETL pipeline and exposed collected data via a restful API
- Assembled a dynamic price guidance model and user interface for business and sales teams with Python and Dash

Undergraduate Research Assistant in Chemical Engineering

*Jan. 2019 - June 2020*

**Vanderbilt University, Laboratory of Dr. Ethan Lippmann** | Nashville, TN

- Boosted the production of flat polyacrylamide gels from 50% to 90% by experimenting with polymerization times to minimize gel curling instances
- Facilitated the culturing of millions of human stem cells and differentiation into brain microvascular endothelial cells for use in central nervous system models

## LEADERSHIP

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Media Secretary, Protection of Minors Secretary, Executive Board

*Sep. 2018 - Present*

**Vanderbilt Student Volunteers for Science (VSVS)** | Nashville, TN

- Oversaw the coordination of volunteer science events in the Nashville metro area for 800+ student volunteers
- Spearheaded the assembly and delivery of 500+ lesson manuals to club volunteers that occurs each semester
- Publicized weekly club news to volunteers through emails and social media posts, generating 500+ weekly clicks
- Organized and instructed mini science lessons in weekly visits to middle school classes of 30+ students

## SKILLS

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Python, C++, MATLAB, Java, HTML, CSS, ASPEN+, PRO/II, JMP, Seeq, Uniformance, Dash, Korean, Teamwork, Outreach