Kate Kimball

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EDUCATION

The University of Texas at Austin

Bachelor of Science in Chemical Engineering

- **GPA:** 3.97
- **Relevant coursework**: Transport Phenomena, Biochemical Engineering, Physical Chemistry, Organic Chemistry I & II, Introduction to Chemical Engineering Analysis

EXPERIENCE

Undergraduate Research Assistant, The University of Texas at Austin August 2023 – Present Advisors: Dr. Manish Kumar, RJ Vogler

- Developing more scalable and rapid methods for biomimetic membrane synthesis
- Determine water permeance and solute rejection properties of membranes
- Synthesize 2D nanomaterials from membrane proteins and block copolymers

Undergraduate Research Assistant, Texas Woman's University

Advisor: Dr. John Beatty

- Collected data on the use of CO2 plasma to create oxygen and carbon monoxide.
- Used RGA and FTIR and learned basic operation of GC-MS and NMR.
- Assisted in trouble-shooting the plasma, vacuum, and RGA set-up (dealt with accumulation in vacuum chamber by using smaller diameter capillaries and lowering flow rates, found problems with changing gas density, and fixed with different capillary sizes, dealt with power supply issues)

Global Youth Citizenship Education Intern, Chasing Two Rabbits at Once

- Chasing Two Rabbits at Once is a non-profit that creates and helps provide preschool education to the Baka, an indigenous group in Eastern Cameroon, that honors their community and culture and builds literacy skills.
- Developed, executed, and participated in a pen pal program between eight US students (from Texas and Pennsylvania) and Cameroonian youth and began a program for US high schools to connect via clubs to the Baka.

AWARDS

Honorable Mention in New York Times STEM Writing Contest

• Was chosen as one of 36 honorable mentions for writing a scientific article: "Direct Air Capture: A Solution for a Carbon Neutral Future".

9th place in FBLA Nationals for Social Media Campaign

 Planned and presented on a proposed social media campaign to elicit donations on Giving Tuesday, won 1st in regionals, 1st in state (PA), and 9th nationally for presentation.

AP Scholar with Distinction

National Merit Commended Scholar

July 2019

April 2021

August 2022 March 2021

May 2026

June 2023 – August 2023

July 2020 – May 2022