

KAREN JIN

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EDUCATION

University of Michigan, Ann Arbor, MI

Expected May 2025

- B.S.E. in Biomedical Engineering, Minor in Computer Science; GPA: 4.0/4.0
- University Honors and Dean's List (all semesters), 3-semester James B. Angell Scholar
- 1934 Engineering Class Merit Scholarship, Tau Beta Pi Merit Scholarship
- Relevant Coursework: Quantitative Physiology, Biomedical Instrumentation and Design, Circuits and Systems, Thermodynamics, Biomechanics, Data Structures and Algorithms, Discrete Math

EXPERIENCE

Helms Lab, University of Michigan

Ann Arbor, MI

Undergraduate Research Assistant

Sep. 2021 - Present

- Designing activation systems to restore desmoplakin expression in patients with *DSP* truncating variants
- Analyzed 100+ images in MATLAB to determine the effect of *DSP* mutations on cardiomyocyte contractility following cellular stress induced by administration of a potent contractile agonist

Tau Beta Pi Engineering Honor Society, Michigan Gamma Chapter

Ann Arbor, MI

Vice President

Apr. 2023 - Present

- Responsible for engaging and overseeing new members, including leading biweekly meetings and tracking progress towards requirements for initiation into the organization

Fall Engineering Career Fair Chair (Volunteers Committee)

Apr. 2023 - Present

- Recruiting and managing over 250 student volunteers for the Fall Engineering Career Fair

Activities Officer

Dec. 2022 - Apr. 2023

- Organized weekly socials and collaborated with other engineering student organizations to run events that provided a platform for expanding members' network of personal and professional connections

Bristol Myers Squibb

New Brunswick, NJ

Biologics Process Development Intern - Global Upstream/Cell Line Development

Jun. 2023 - Aug. 2023

- Investigating the efficacy of lipid nanoparticle-based mRNA delivery for transient expression of biotherapeutics
- Optimizing cell culture and transfection conditions to streamline production for toxicology and FIH studies

University of Michigan College of Engineering

Ann Arbor, MI

Instructional Aide (Engr 100.350: Engineering Biological Solutions)

Jan. 2023 - Apr. 2023

- Supported students by supervising weekly lab sections, holding office hours, and grading homework/exams

Medtronic

Littleton, MA

Test Engineering Intern

May 2022 - Aug. 2022

- Updated testing protocols to be in accordance with most recent software and safety regulations
- Conducted dry runs and formal testing of software, user interface, calibration procedures, and motion control to ensure functionality of medical imaging devices

SKILLS

- Software: MATLAB, C++, ImageJ, JMP, Spotfire, LabVIEW
- Lab skills: cell culture, PCR, gel electrophoresis, DNA extraction, microscope imaging, micropatterning
- Instruments: Vicell Cell Counter, Cedex Bio HT Analyzer, Flex2 Cell Culture Analyzer, Guava Flow Cytometer