

Tony Zheng

734-394-8119 · tozheng@umich.edu · 917 Packard St Apt 5 · Ann Arbor, MI 48105

<http://www.linkedin.com/in/tony-zheng-748051209>

EDUCATION

University of Michigan, Ann Arbor, MI

BSE in Chemical Engineering, Minor in Chemistry

Expected Graduation: May 2024

GPA: 3.83/4.00

Relevant Coursework: Mass and Heat Transfer, Solution-Processed Optoelectronics, Reaction Kinetics

RELEVANT EXPERIENCE

Chemical Engineering Intern

Fujifilm DIMATIX Inc.

Santa Clara, CA

June 2023 - August 2023

- Developed repeatable copper, nickel, and gold electroplating processes for new inkjet printheads in research and development
- Performed daily titrations and atomic absorption spectroscopy to collect electroplating bath chemistries

Undergraduate Researcher: Gong Lab

University of Michigan Dept. of Chemical Engineering

Ann Arbor, MI

September 2022 - Present

- Designed an original device for collecting IV curves of solar cells using Solidworks, 3D printing, and electrical circuitry
- Developed an innovative, interlocking capacitive pressure sensor using biomimicry of *Calathea zebrina* leaves, specifically taking advantage of their natural domed microstructure
- Performed sensitivity analyses for our novel capacitive pressure sensor leading to a new manuscript

May 2022 - September 2022

- Wet-synthesized metal halide perovskites for fabrication of next-generation solar cell technology
- Synthesized unique UV-crosslinking urethane polymer for incorporation into perovskites to create stretchable solar cells

May 2021 - May 2022

- Wet-synthesized semiconducting quantum dots emitting light in the near-infrared wavelength range
- Performed layered spin coating of quantum dots and conductive polymers to create stretchable light-emitting diodes (LEDs) for use in wearable electronics applications
- Characterized semiconducting quantum dots using atomic force microscopy, optical microscope imaging, and UV-Visible spectroscopy to assess stretchable and optical properties leading to manuscript

LEADERSHIP

Omega Chi Epsilon Chemical Engineering Honor Society

Vice President, January 2023 - Present

- Update spreadsheet containing progress for all members including the number of completed service hours, attendance in weekly meetings, and participation in social events
- Lead professional development events for members featuring talks with company representatives and University of Michigan professors

Tau Beta Pi Engineering Honor Society, MI-G Chapter

Historian, April 2023 - Present

- Create and release all chapter publications including weekly Cornerstones (chapter newsletters) and Youtube videos
- Founder and host of TBPodcast, a series giving Michigan engineers a platform to share their stories

Career Fair Chair, June 2023 - Present

- Lead the planning and execution of the annual Fall Engineering Career Fair for students to network with recruiters from over 200+ companies

ACTIVITIES

Tau Beta Pi Engineering Honor Society, Ann Arbor, MI

September 2022 - Present

Omega Chi Epsilon Chemical Engineering Honor Society, Ann Arbor, MI

September 2022 - Present

American Institute of Chemical Engineers, Ann Arbor, MI

December 2020 - Present

PRESENTATIONS

Chemical Engineering Undergraduate Research Symposium, Ann Arbor, MI

March 2023

- Presented current novel capacitive pressure sensor research and potential future applications

March 2022

- Presented research results for stretchable and wearable LEDs for real time health monitoring applications

SKILLS

- **Software Skills:** MatLab, Solidworks, OriginPro, PreForm, and STL 3D printers, Microsoft Office
- **Lab Skills:** Atomic force microscopy (AFM), absorption spectroscopy, spin-coating, optical microscope imaging, building circuits, plasma cleaning, blade coating, spray coating