Kaiyang Diao

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EDUCATION

University of Arizona — Tucson, AZ
Bachelor of Science in Biomedical Engineering | GPA: 3.55/4.0 — *Expected Graduation: May 2025*

RESEARCH EXPERIENCE

Undergraduate Researcher
Department of Biomedical Engineering, University of Arizona — *Feb 2023 - Jul 2023*

- Under Dr. Nima Toosizadeh
- Testing the Effects of Stochastic Noise Applied to the Ankle Muscles and How That Affects Proprioceptive Performance

Undergraduate Researcher
Department of Biomedical Engineering, University of Arizona — *Aug 2023 - Present*

- Under Dr. Jennifer Barton
- Designing motion system and software of the multiphoton microendoscope system for minimally invasive detection of Cancer

Undergraduate Researcher
Wyant College of Optical Sciences, University of Arizona — *May 2024 - Present*

- Under Dr. Travis Sawyer
- Multiphoton microscope imaging and machine learning

PROJECTS

MeArm, *Intermediate Engineering Design, University of Arizona* — *Feb 2023 - May 2023*

- Developed a 4-axis parallel-mechanism robotic arm with a camera for motion detection.
- Programmed both manual and automatic modes by using Python and Raspberry Pi.
- Attended Final competition which involved throwing and defending balls.

My Cardio Coach, *Medical Device Design, University of Arizona* — *April 2021 - June 2021*

- Developed a low-cost calf band that monitors heart rate, blood oxygenation, and step count.
- Used I2C protocol to ensure simultaneous Communication between multiple sensors with one controller.
- Designed PCB board to ensure functionality while keeping the size within 3x3cm.

Publication

Poster: Diao, K., Adams,Z,. Young, L., Valenzuela, L, K. Barton,J..(2023) Helically Scanning Multiphoton Microendoscope System for Early Detection of Cancer

SKILLS

- **Technical:** R, MATLAB, C, Python, LabVIEW, SolidWorks, AutoCAD
- **Languages:** English, Mandarin, and Cantonese

AWARDS

- Dean's list from Fall 2022 to Spring 2024
- Academic Year Academic Distinction 2023, 2024
- 2nd place in the 2024 BME Day Student Poster Competition, University of Arizona