Curriculum vitae
Tianxing (Daniel) Weng
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RESEARCH INTEREST

Soft and Active Matter, Biological Physics, Non-equilibrium Statistical Physics.

EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA

B.S., Physics, Current GPA: 4.0/4.0 Expected Graduation Date: May 2025

EXPERIENCE

Lab Assistant, Wu Lab, WPI, Worcester, MA October 2022 – Present

Collaborated with PhD candidate Joshua Dickie specializing in microtubule-kinesin active fluid, a hierarchically self-assembling active matter built from microtubules, kinesin motor proteins, and synthetic depletant, which forms an extensile gel-like network whose structure constantly self-rearranges. Independently acquired micrograph timelapses of dynamic behavior, testing biocompatibility of 3D-printed resin prototypes, varying constituent concentrations of mixture, employing a custom microfluidic moving boundary device, and performing image-based particle image velocimetry analysis.

SKILLS

Computation: Image Analysis, Particle Image Velocimetry, Data Analysis, High-Performance Cluster Computation (MATLAB), and Globus
Wet Lab: Microfluidics, biological sample preparation, colloids, protein synthesis and purification, glass coating
Dry Lab: Epifluorescence microscopy, time-lapse, image stitching, multi-position, voltage triggering and multi-bandpass filter cube
Fabrication: 3D Printing (microfluidics)

AWARDS

Dean's List, WPI August 2022 – Present
Presidential Scholarship, WPI August 2022 - Present
Global Scholarship, WPI August 2022

ACTIVITIES

Member**,** Society of Physics Students, WPI, Worcester, MA September 2022 – Present
Member, Sigma Pi Sigma, WPI, Worcester, MA February 2023 – Present

October 19, 2023