

Shu-Hang (Jason) Lin

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Education

University of Michigan, Ann Arbor, MI

Bachelor of Science in Engineering in Chemical Engineering
Minor in Computer Science, Engineering Honors Program

April 2023
GPA: 3.82/4.00

Experience

Tech-X Corporation

Boulder, CO

SOFTWARE ENGINEERING INTERN

June 2020 – Present

- Developed capabilities (field updaters) in C++/CUDA architecture to facilitate upgrade to new multi-device (CPU and GPU) framework for multi-physics simulation software
- Implemented fundamental field updaters (linear plasma, binary operations, and curl) essential to the development of regression tests and user examples, granting new software capabilities to developers and users
- Repaired infrastructure disparities and bugs in code repository and drafted documentation using reStructuredText, producing cleaner and more consistent workflow for other team members

PROJECT INTERN

May 2019 – August 2019

- Translated matrix-solving algorithm from Python to multi-threaded C++, resulting in fully functional algorithm solving all-orders spectral algorithm (AORSA) used in fusion research and modeling
- Implemented time trials and theoretically faster matrix-solving method (Chebyshev-Accelerated Richardson Iteration), deducing optimal cell number for algorithm
- Executed working code on National Energy Research Scientific Computing (NERSC) Center's Cori supercomputer, leading to collection of runtime data on matrices of larger sizes (1024 x 1024)

Biointerfaces Institute at University of Michigan

Ann Arbor, MI

RESEARCH ASSISTANT, PROF. LAHANN LAB

October 2019 – April 2020

- Conducted wet lab research in gene delivery to construct novel protein nanoparticles that improve on current non-viral gene delivery methods
- Analyzed data from relevant scientific publications, pinpointing optimal design that relied on material, synthesis, and fabrication (electrohydrodynamic co-jetting) of nanoparticles
- Examined characteristics of nanoparticles via dynamic light scattering, scanning electron microscopy, and image processing software, resulting in successful data compilation

Leadership

Tau Chi Epsilon

Ann Arbor, MI

CO-FOUNDER & VP - FINANCE

July 2020 – Present

- Established and leading new professional organization on campus focused on developing future leaders in technology, with emphasis on substance-free culture

Michigan Research and Discovery Scholars

Ann Arbor, MI

PEER MENTOR

August 2020 – Present

- Guiding first-year students in learning community on college transition through social events and 1-on-1 meetings
- Assisting and cooperating with other leaders to promote inclusivity and positivity through daily interactions

Skills

Programming: C, object-oriented C++, MATLAB

Preferred Platform: Linux/Unix

Languages: Mandarin Chinese (Native), Spanish (Proficient)

Activities

University of Michigan Solar Car Team, *Aerodynamics Division Member*

September 2020 – Present

American Institute of Chemical Engineers, *Member*

June 2020 – Present

Michigan Ballroom Dance Team, *Member*

August 2019 – Postponed

Interests: Chess, Swimming, Violin, Guitar