

Taysia Pulelehuaonalani Takako Morioka

808-436-7738 • taysia@umich.edu • Kaneohe, Hawaii • Ann Arbor, Michigan

EDUCATION

University of Michigan, Ann Arbor, MI

Bachelor of Science in Engineering

Anticipated Dec. 2024

GPA: 3.89/4.00

Iolani School, Honolulu, HI

High School Diploma (Valedictorian, Cum Laude Society)

June 2021

GPA: 4.37/4.00 weighted, 4.00/4.00 unweighted

Course Highlights: Mass & Heat Transfer, Separation Processes, Thermodynamics, Fluid Mechanics, Organic Chemistry 1 & 2, Physiology, Physical Chemistry, Materials Science, Multivariable Calculus, Differential Equations, Electricity & Magnetism

RESEARCH

Laboratory Research-Assistant, Michigan Engineering Lahann Laboratory, Ann Arbor, MI

Oct. 2022 – present

Support Dr. Michael Triebwasser's research studying the efficacy and specificity of non-viral delivery systems. Create tests of the GFP/RFP coding region (green/red fluorescent protein) and the Cre-lox system in being a visible indicator of plasmid DNA integration. Conduct cell culture of HepG2 liver tissue through media replacement and trypsinization to regulate confluence. Treat cells with antibiotics after plasmid injection to sort for desired gene expression. Recognize the significance of these assays as building blocks for genetic medicines.

Neurology Research Intern, The Queen's Medical Center, Honolulu, HI

May 2023 – present

Conduct an independent research project on accessibility of comprehensive care in Hawaii. Program a heatmap presenting zip codes of thrombectomy patients in parallel to a general heatmap of populations. Visualize the disparities that lead to non-uniform access to treatment, such as distance/travel time and economic factors. Make proposals for policy changes based on the unique medical challenges island communities suffer from.

PROFESSIONAL EXPERIENCE

Student Shadow, The Queen's Medical Center, Honolulu, HI

Aug. 2022 – Aug. 2023

Dr. Ferdinand Hui & Dr. Samuel Tsappidi, *Neurointerventional Surgery*, 70 hours

Monitor minimally invasive surgeries (radial and femoral artery access) from inside the operating room for cases of stroke, ruptured aneurysm, stenosis, and fistulas. Understand and analyze cerebral angiograms during placement of stents and coils. Become familiar with pharmaceutical treatment and procedures involving newly implemented medical technologies.

Therapeutic Recreation Intern, Aloha Nursing and Rehab Centre, Kaneohe, HI

May 2023 – Aug. 2023

Organize therapeutic recreational activities for geriatric residents with chronic mental illness and disability. Provide companionship for late stage dementia patients through personal visits. Support nursing staff in monitoring residents' safety.

Urban Plan Intern, Urban Land Institute of Hawaii, Honolulu, HI

May 2021 – Aug. 2022

Create and pitch Windward Community College affordable teacher housing development proposal. Analyze finances, assess market demands and communicate with neighborhood and city representatives to design the site.

Restaurant Hostess, Oahu Country Club, Nuuuanu, HI

May 2022 – Aug. 2022

Admission Intern, Iolani School Admissions Office, Honolulu, HI

May 2021 – July 2021

Tutor (Japanese and Writing), Iolani School & Independent, Honolulu, HI

Dec. 2017 – June 2021

Librarian Aide, Iolani School, Honolulu, HI

Dec. 2019 – June 2021

LEADERSHIP & ORGANIZATIONS

Hawai'i Club at UM, Co-Founder, Outreach & Publicity Chair

June 2022 – present

Establish the objectives, mission, and value system of the first Hawaiian student organization at the University of Michigan. Foster a welcoming community for students from Hawaii and those interested in Hawaiian culture. Encourage cross-cultural collaboration by partnering with other student organizations for fundraising events and performances.

Theta Tau Professional Engineering Fraternity, Philanthropy, Marketing, & Diversity Chair

Jan. 2022 – present

Engage with engineers in a cross-disciplinary environment with the common values of service, brotherhood, and professionalism. Cultivate the #1 Diversity, Equity, and Inclusion program across nationwide chapters. Support junior members on their coursework and professional development.

Alpha Kappa Delta Phi Asian-Interest Sorority, Publicity, Fundraising, & Recruitment Chair

Aug. 2022 – present

Uplift the Asian-American community through exemplary leadership, service, and scholarship. Fundraise to empower programs in Asian Awareness and Breast Cancer Awareness. Facilitate recruitment events with fairness and respect.

HONORS/AWARDS

U of Michigan: Dean's List & University Honors (all semesters), William J. Branstrom Freshman Prize (top 5% engineering freshmen), Class of 1958 Engineering Scholarship, Julius F. Bartus Scholarship, Lloyd L. and Barbara Kempe Scholarship

Iolani School: Alumni Award, Dennis Onishi Award, Roy Morikawa Award, Edward K. Hamada Award, Japanese 5-Honors Award

Other: Paubox Kahikina STEM Scholarship for Native Hawaiians, College Board National Indigenous Recognition Program Scholar

SKILLS

Language: proficient in Japanese, C++, MATLAB

Lab: IR, NMR, TLC, LLE, column chromatography, tissue culturing