JUSTIN W. LAM

Education

Donald and Barbara Zucker School of Medicine at Hofstra/Northwell
Doctor of Medicine   Expected: May 2028

Carnegie Mellon University, Pittsburgh, PA
Bachelor of Science in Chemical Engineering and Biomedical Engineering, GPA: 3.85   May 2024

Relevant Coursework: Rehabilitation Engineering, Physiology, Organic Chemistry II

Honors

James McKenny Award, AGHE, Gerontological Society of America, 2023
RERC on AAC Award, RESNA, Penn State University, 2023
Dean's List, Carnegie Mellon University, 2020 — 2021, 2023
The Bernard Mackler Class of '52 Scholarship in Social Studies, 2020

Research Experience

Northwell Health, Feinstein Institutes for Medical Research
Research Assistant, June 2024 – Present
Advisor: Dr. Edith Burns
Reviewing electronic health records (EHR) data across eight hospitals to assess compliance with the Institute of Healthcare Improvement's (IHI) Age-Friendly recommendations.

Regeneron Pharmaceuticals, Formulation Development Group
Research Intern, May 2023 – August 2023
Advisor: Caroline Tsao
Tested the long-term stability of a monoclonal antibody formulation under different stress conditions using different analytical methods, such as HPLC, MFI, and icIEF.

Wake Forest University School of Medicine, Department of Biomedical Engineering
Research Intern, May 2022 — July 2022
Advisors: Delanie Lynch, Dr. Ashley Weaver
Developed subject-specific finite element models of a proximal femur. Created a nearest neighbors' method in MATLAB to assign cortical bone thickness values to regions on a finite element model. Performed analysis in R using one-way ANOVA and built a multiple linear regression model with feature selection conducted by a forward and backwards stepwise AIC method. Presented poster at the ADAR summit (11/2/2022) and the Gerontological Society of America (11/2/2022)

Carnegie Mellon University, Biohybrid and Organic Robotics Group (B.O.R.G.)
Research Assistant, Nov. 2021 — May 2022
Advisors: Ashlee Liao, Dr. Victoria Webster-Wood
Traced the path of rat hippocampal neurites using NeuronJ, a plug-in for ImageJ. Conducted a change point analysis, a quantitative method for assessing changes in a path of a neurite, using R.

Carnegie Mellon University, Health and Human Performance Laboratory
Research Assistant, Jan. 2021 — Jan. 2022
Advisors: Sarah Lipitz, Dr. David Creswell
Assisted project pipeline by creating macros in Excel VBA to facilitate the processing of various biometric data for a healthy aging study.

Stuyvesant High School, Student Union
Volunteer Data Analyst, Jan. 2021 — March 2021

Examined data about the relationship between academic and non-academic stressors. Performed analysis in R using chi-square tests and a multiple logistic regression model. Presented a 45-minute lesson about mental health to various classes (03/18/21 and 03/19/21)

New York City Department for the Aging, Research Division
Research Intern, July 2019 — May 2020
Advisors: Dr. Madison Gates, Dr. Jackie Berman
Conducted a literature review of mental health stigma and existing outreach methods for older adults. Performed analysis of aggregate data in R using Kruskal-Wallis test and a multiple logistic regression.

Presentations

Annual Meeting of the Gerontological Society of America 2024, Seattle, WA. Nov. 2024. Lam, J.
"An Age-Friendly Approach to the Design of Web-Based User Interfaces" (presentation).

Annual Meeting of the Gerontological Society of America 2024, Seattle, WA. Nov. 2024. Lam, J.
"Impact of 4Ms on Outcomes for Hospitalized Older Adults in an Age-Friendly System" (poster).

Annual Meeting of the Gerontological Society of America 2023, Tampa, FL, Nov. 2023. Lam, J.
"Design Needs and Perceptions of Older Adults Regarding Shared-use Automated Vehicles" (poster).

Rehabilitation Engineering and Assistive Technology Society of North America. New Orleans, LA, Jul. 2023. Lam, J.
"TOASTI: Tongue Operated ASsisTive Instrument" (presentation).

Annual Meeting of the Gerontological Society of America 2022, Indianapolis, IN, Nov. 2022. Lam, J.
"Compartmental Femoral Cortical Thickness in Older Adults Differs by Demographics and Physical Function" (poster).

New York City Science and Engineering Fair, New York, NY, March 2020. Lam, J. "Reaching Out to Older Adults with Mental Health Disorders in New York City" (poster).

Leadership / Service

University of Pittsburgh Medical Center Shadyside Hospital
HELP Volunteer, Jan. 2021 — June 2024
Perform interventions to address risk factors of delirium in older adults. Improve quality of stay of older patients by ensuring meals are accessible.

Heights and Hills
Friendly VOICES Volunteer, July 2024 — Present

Jewish Community Council of Greater Coney Island
Friendly VOICES Volunteer, July 2023 — July 2024

New York City Department for the Aging
Friendly VOICES Volunteer, May 2023 — July 2023
Friendly Visiting Volunteer, Dec. 2020 — May 2023
Contact an older adult experiencing social isolation over phone for an hour a week. Organized and facilitated a weekly support group for older adults with anxiety (Oct. 2021 — Nov. 2021).

Here for You Club
Webmaster, May 2023 — Present
Vice President, Dec. 2020 — May 2023
Help facilitate weekly general body meetings about accessing mental health resources. Develop events for encouraging mental health breaks for students on campus.

Lean On Me @ Carnegie Mellon University

Chapter Coordinator, May 2023 — Present
Supporter Coordinator, Dec. 2020 — May 2023
Support students on a peer-to-peer mental health help text line. Organize meetings to help address needs of text line supporters.

Selfhelp's Virtual Senior Center
Volunteer Facilitator, July 2020 — Nov. 2021
Organized biweekly ~1 hour long lessons for a group of older adults through Zoom. Created lesson plans and a curriculum around various science, psychology, and health topics

Technical Skills

Computational: Stradview, Mimics, Python, R, MATLAB, Excel VBA, SPSS, LaTeX, Microsoft Office
Wet Laboratory: Microflow imaging, HPLC, imaged capillary isoelectric focusing, PCR, agarose gel electrophoresis, ELISA, serial dilutions, bacterial transformation