

MICHELLE J. LEE

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RESEARCH INTERESTS

I am passionate about data-driven responses to humanitarian crises and natural disasters to reduce adverse health outcomes of conflict-affected population through socially responsible use of data technology. I received my M.P.H. from Columbia University and am currently working with Dr. Stella Yi at New York University on Asian American health disparities using machine learning methods.

EDUCATION

Columbia University, New York, NY M.P.H., 2021

Master in Public Health, Department of Population and Family

Certificate in Applied Biostatistics & Data Science

Thesis research: The effects of international media coverage on humanitarian intervention decision: Big data analysis of Rohingya refugee crisis

Thesis advisor: Professor Bill Bower

Wesleyan University, Middletown, CT B.A., 2016

Bachelor of Arts in Science in Society, Certificate in Critical Theory

Academic advisor: Professor Joseph Rouse

Pitzer College in Nepal, Kathmandu, Nepal Spring 2015

Courses: Independent research, Nepal studies, beginner/intermediate Nepali

Lincoln High School, Lincoln, NE Diploma, 2012

GPA: 3.83 unweighted; 4.34 weighted for International Baccalaureate classes

WORK EXPERIENCE

Junior Data Analyst Oct 2021 - current

New York University Center for the Study of Asian American Health, New York, NY

- Analyzing and visualizing health data from nationwide Asian American health needs assessment using R studio to examine the effects of COVID-19 on health systems, clinics, and communities
- Applying machine learning methods to replace missing race and ethnic information in health research to investigate health disparities based on personal information
- Conducting literature review, drafting letters, memos, presentations on relevant topics to efficiently share knowledge and keep the lab updated with recent research methods

Advisor: Dr. Stella Yi

Data Science for Social Good Fellow Summer 2021

Stanford Data Science, Stanford University, Stanford, CA and

DELPHI Research group at Carnegie Mellon University, Pittsburgh, PA

- Created a shiny app to easily visualize and compare COVID-19 forecaster models for epidemiologists to find anomalies in cases, hospitalizations, and deaths
- Created a parameterized report for customizable evaluation of forecasters for data scientists to rank model performances and identify rooms for improvement in prediction models
- Prepared weekly presentations to share project progress with other fellows and supervisors to share ideas and receive feedback based on multidisciplinary perspectives

- Improved technical skills in R through technical training and guest lecturers on current methodologies of machine learning and data science on projects with a social impact

Fellowship advisor: Dr. Balasubramanian Narasimhan

Teaching Assistant

Fall 2021

Department of Population and Family, Columbia University, New York, NY

- Created weekly interactive review materials online (Rise Articulate, Canvas) to provide additional learning resources for students and practice course concepts
- Taught weekly classes to apply lecture content into practice and examine real-world examples through class activities to improve students' learning progress
- Established online communication platforms (Slack, Canvas) to provide immediate responses to students and cultivate a sense of community during virtual classes
- Organized and updated TA teaching and grading materials for efficient and consistent teaching and grading systems on class assignments

Course professors: Dr. Abigail Greenleaf, Dr. Maureen Allwood

User Experience (UX) Researcher

2019 - 2020

Sonic Sensory Inc., Los Angeles, CA

- Assisted in designing and analyzing usability tests (private interviews, surveys, and focus groups) to improve user interaction with mobile applications and wearable technology
- Created automated process for study recruitment and onboarding process using cloud-based systems to efficiently manage usability tests that occurred every month
- Created presentations summarizing usability study outcomes for company executives, engineers, and designers to discuss room for improvement and product direction

Asian and Pacific Islander (API) Outreach Law Clerk

2018 - 2019

The Legal Aid Foundation of Los Angeles, Los Angeles, CA

- Streamlined referral services for survivors of domestic violence, sexual assault, trafficking, and other gender-based violence with appropriate resources (trauma-informed therapists, social workers, and lawyers) from a compassionate-based perspective
- Provided legal assistance to low-income API individuals and families about housing, immigration, and employment issues and connected them with appropriate social services
- Created presentations and wrote memos on local and state policies related to gender-based and domestic violence for efficient sharing of updated policies and knowledge

Epidemiology Paralegal

2016 - 2017

Weitz & Luxenberg, PC., New York, NY

- Successfully organized and led litigations from pre-trial as a science and epidemiology paralegal on various environmental and medical lawsuits against corporations
- Conducted systematic reviews of scientific articles related to trial to present them to lawyers and experts and keep them updated with recent publications
- Co-authored expert reports, depositions, discovery and trial documents, and memos to assist biostatisticians and lawyers and streamlined general court correspondence for pre-trial

Supervising attorney: Paul Pennock, Esq.

Human Rights Law Intern

2015 - 2016

Commission of Human Rights & Opportunities, Hartford, CT

- Organized a state-wide conference on the school-to-prison pipeline for educators, human rights lawyers, and policymakers with workshops and lectures to initiate policy changes and solutions
- Resolved and negotiated employment and housing discriminations to assist human rights lawyers after a thorough investigation, interviews, and fact-finding
- Organized and drafted affidavits, investigation reports, witness lists, and memos to assist in trials
Advising attorney: Cheryl Sharp, Esq.

Title IX Intern

2014 - 2016

Wesleyan University, Middletown, CT

- Successfully received approval from the Board of Trustees to establish a Gender and Race Resource Center on campus after presenting a 30-page proposal based on research of campus climate on gender and race resources
- Streamlined referral process for survivors of gender-based violence on campus to legal services and counseling, and support on campus by building a tight-knit community of advocates
- Organized meetings with campus student leaders and administrators each semester to present Title IX status at Wesleyan to promote greater compliance and accountability on campus

HONORS AND AWARDS

Graduate School

Data Science for Social Good Fellowship, Stanford University

Summer 2021

High Pass on Capstone Project, Columbia University

Spring 2021

Dean's Scholarship, Columbia University

2019 - 2021

College

Bill and Melinda Gates Millennium Scholarship

2012 - current

Dean's List, Wesleyan University

Spring 2016

Summer Internship Award, Wesleyan University

Summer 2015

PUBLICATIONS

All journal articles are peer-reviewed

3. **Lee MJ**, Lee SY. Labor rights and human rights in the United States: Topic modeling of the news media. *In review*.

2. **Lee MJ**. Insights into mental health and vulnerable communities during the COVID-19 pandemic in South Korea: Topic modeling of the news media. *In review*.

1. **Lee MJ**. Media influence on humanitarian interventions: analysis of the Rohingya refugee crisis and international media coverage. *Int J Humanitarian Action* 6 2021 (20). DOI: 10.1186/s41018-021-00108-5

EXTRACURRICULAR ACTIVITIES AND LEADERSHIP

Columbia University, New York, NY**President, Graduate Students Association**

2019 - 2021

- Organized campus-wide town hall meetings to serve as a liaison between graduate students and school administrators to advocate for feasible, transparent solutions

- Organized social events, seminars, alumni events to foster a sense of community among graduate students and promote opportunities through the alumni network
- Conducted student needs assessment (education, housing, employment, food security) at the beginning of COVID-19 and negotiated with school administrators to offer tangible solutions to reduce learning barriers during virtual classes

Treasurer, Humanitarian Organization for Migration and Emergencies 2020 - 2021

- Organized campus events and fundraising events to collect funds to send emergency kits to Puerto Rico
- Invited guest lecturers who work in humanitarian organizations to share their experiences and how to jumpstart a career in humanitarian organizations

Wesleyan University, Middletown, CT

President, Asian American Student Coalition 2012 - 2016

Chair, Liberty in North Korea 2012 - 2016

Title IX Intern, Gender Resource Center 2014 - 2016

Restorative Justice Intern, Theater Behind Bars 2015 - 2016

Violin tutor, Green Street learning center 2015 - 2016

SKILLS

Computer languages: R (2.x, 3.x), Python (3.x), SAS, SPSS

Computer operating systems: Windows XP / Vista / 7 / 8 / 10, Mac OS

General software: Github, Microsoft Word / Excel / Powerpoint, Adobe Acrobat, Photoshop, InDesign

Information retrieval: Pubmed, LexisNexis, NCBI

Languages

Korean: fluent in reading, writing, and speaking

Nepalese and Hindi: intermediary reading, writing, and speaking

French: introductory reading, writing, and speaking