

Ashley S. Tseng

PhD Candidate in Epidemiology

atseng23@uw.edu

<https://www.ashleystseng.com/> | <https://www.linkedin.com/in/ashleystseng1/>

EDUCATION

University of Washington School of Public Health, Seattle, WA

Expected June 2024

Doctor of Philosophy (PhD) in Epidemiology

Predoctoral Fellow, Biostatistics, Epidemiologic, and Bioinformatic Training in Environmental Health Training Grant, National Institute of Environmental Health Sciences, U.S. National Institutes of Health (June 2020-2022)
Diversity Research Supplement Awardee, Research Supplement to Promote Diversity in Health-Related Research, National Institute of Mental Health, U.S. National Institutes of Health (June 2022-2024)

Columbia University Mailman School of Public Health, New York, NY

May 2020

Master of Public Health (MPH) in Epidemiology, Applied Biostatistics Certificate

Master's Thesis: "Network analysis of livestock trade data to assess potential for zoonotic disease spread in Western Asia" (Grade: A)

Relevant coursework: Epidemiology I-III, Applied Regression I & II, Analysis of Categorical Data, Data Science, Emerging Infectious Diseases, Epi Modeling of Infectious Diseases, Advanced GIS and Spatial Analysis, Pharmaceutical Statistics, Machine Learning for Epidemiology and Public Health

McGill University, Montreal, QC, Canada

May 2018

Bachelor of Science (BSc) in Physical (Health) Geography, Minor in Economics

Relevant coursework: Global Environmental Health & Burden of Disease, Economic Evaluation of Health Programs, Fundamentals of Global Health, Advanced Topics in Health Geography

SKILLS & CERTIFICATIONS

Statistical, Spatial, and Bioinformatic Analysis: EpiInfo, R (advanced), SAS (basic), Stata (basic); ArcGIS, GeoDa, QGIS; Geneious Prime, Shell Scripting

Microsoft Office: Excel, PowerPoint, Word

Languages: English (full fluency), Mandarin Chinese (moderate fluency)

Certifications: CITI Human Subjects Protection and HIPAA Patient Privacy

CONSULTING, NON-PROFIT & GOVERNMENT PUBLIC HEALTH RESEARCH EXPERIENCE

EpiPointe LLC, Cary, NC

October 2022 – Present

Epidemiologist (Consultant)

PI: Dr. Falgunee Parekh

- Working in collaboration with Guru Angad Dev Veterinary and Animal Sciences University in Punjab, India to develop an innovative training network program focused on the under-represented workforce of Women Veterinary Health Professionals (WVHPs) and Women Farmers (WF) to enhance capacity to rapidly detect outbreaks of high consequence pathogens
- Designing content for multi-day workshops in India to train WVHPs on One Health Epidemiology and laboratory biosafety and biosecurity topics
- Assisting in selection of WVHPs to implement pilot workshops for WFs in their districts
- Writing and disseminating monthly short trainings/communications after workshops to reinforce learning outcomes, promote recruitment, and ensure retention of WVHPs and WFs
- Developing and implementing pre- and post-engagement evaluation metrics of participants to measure capacity, knowledge, awareness, strengths, weaknesses, and likelihood of implementation success

International Clinical Research Center, Seattle, WA

September 2021 – June 2022

Research Assistant

PI: Dr. Jennifer Ross, Department of Global Health

- Worked on a HIV-Tuberculosis (TB) mathematical modeling study to estimate the health impact in HIV infections averted of combination prevention and linkage to antiretroviral therapy for serodiscordant

couples in TB-affected households in 4 TB-HIV high-burden countries (Ethiopia, Kenya, South Africa, Uganda)

- Conducted 2 systematic literature reviews to identify mathematical model parameters for the study
- Managed study literature database and performed data extraction of past studies
- Calculated the prevalence of HIV in adult household contacts of TB patients in Ethiopia, Kenya, South Africa, and Uganda
- Co-authored a manuscript based on study findings

Chelan-Douglas Health District, Wenatchee, WA

August 2021 – September 2021

Epidemiologist (Deployed)

Supervisor: Dr. Luke Davies, Chelan-Douglas Health District Administrator

- Deployed as a University of Washington Student Epidemic Action Leaders (SEAL) Team member on a 6-week assignment in Wenatchee to understand more about long COVID through data collection and advanced analyses
- Performed a rapid literature review and wrote up a summary report on long COVID
- Created a centralized COVID-19 case database for the health district
- Analyzed data on long COVID cases in the Chelan-Douglas Health District
- Assisted with COVID-19 case investigations and test notifications across the health district during the Delta variant surge in cases and at vaccination clinics

International Clinical Research Center, Seattle, WA

September 2020 – September 2021

Research Assistant

PI: Drs. Carey Farquhar and Joshua Herbeck, Department of Global Health

- Worked on various research tasks for the Study of HIV, HCV, APS and Phylogenetics for PWID (SHARP) which seeks to determine whether assisted partner services can find, test, and link to care the sexual and injection partners of people who inject drugs that are HIV-positive in Kenya
- Performed phylogenetic and statistical analyses to elucidate risk factors for onward transmission of both HIV and hepatitis C in this population
- First-authored a paper examining characteristics of index participants that result in greater onward transmission of HIV in sexual and drug-injection partners
- Co-authored a paper describing viral suppression of drugs used to treat HIV in the study population
- Worked with co-investigators on manuscript development, literature reviews, and parameterization of HIV epidemiological models
- Prepared the IRB application for a supplemental study on COVID-19 testing in this population

EpiPointe LLC, Cary, NC

April 2021 – July 2021

Epidemiologist (Consultant)

PI: Dr. Falgunee Parekh

- Worked in collaboration with FHI Clinical and Harvard Medical School to conduct Site Feasibility assessments for the epidemiology study that will support a Phase 3 tuberculosis vaccine trial sponsored by the Bill and Melinda Gates Medical Research Institute
- Assisted in development of the Feasibility and Site Capacity Assessment Tool to assess tuberculosis epidemiology at the site and catchment area levels
- Developed a systematic method to score key criteria in the Feasibility and Site Capacity Assessment Tool
- Scored site responses according to the systematic method developed
- Provided topic areas for subject matter experts to follow-up with sites based on evaluation of survey responses
- Contributed to a final report that summarizes the scoring process, results of scoring, ranking of sites according to key criteria, and lessons learned

- Worked on a manuscript for scientific publication in conjunction with the team to describe the assessment and scoring methodology

Alliance for Pandemic Preparedness, University of Washington, Seattle, WA June 2020 – June 2021

COVID-19 Literature Situation Report Research Assistant

PI: Drs. Jennifer Ross and Brandon Guthrie, Department of Global Health

- Contributed to the production of a daily summaries and in-depth reports of literature related to the COVID-19 outbreak
- Tasks included a daily systematic search of published and pre-print literature, importation of citations, sorting of references into priority categories, identification of 10-20 articles per day to summarize, writing and editing of article summaries, and distribution of a daily literature digest

Department of Epidemiology, Columbia University, New York, NY September 2019 – September 2020

Graduate Research Assistant

PI: Dr. Jeanine Genkinger, Department of Epidemiology

- Worked on a new research study of nutrition, early detection, and cancer risk and survival (primarily focused on ovarian and pancreatic cancers) for 34 international cohort studies included in the Pooling Project of Prospective Studies of Diet and Cancer (DCPP) of Harvard University
- Routine tasks included assisting with NIH research grant submissions, performing word processing for scientific manuscripts, conducting data analysis and literature searches, updating research databases, preparing PowerPoint presentations, and creating tables, graphs, and spreadsheets
- Co-authored: 1. an epidemiology methods manuscript on the data standardization process for comparison across five different dietary indices and 2. a systematic review on risk factors for double primary breast and ovarian cancer in women across the risk spectrum

Columbia University Mailman School of Public Health, New York, NY March – May 2020

Teaching Assistant, EHSC P8321: Introduction to Data Science for Environmental Health

Professor: Dr. Tiffany Sanchez, Department of Environmental Health Sciences

- This team-taught second quarter Spring 2020 course covered both conceptual and practical topics in data science related to environmental health sciences including web scraping/text mining, working with spatial data, prediction models, and omics
- Worked with various instructors to develop weekly modules, coded weekly lab and homework assignments in R, led students through in-class coding labs, and troubleshooted student questions during weekly office hours

EcoHealth Alliance, New York, NY May 2019 – August 2019

EcoHealthNet Research Exchange Intern

PI: Dr. Kevin Olival, Vice President for Research & Dr. Kendra Phelps, Senior Scientist

- Worked specifically on the Western Asia Bat Research Network Project (WAB-Net) which is fully funded by the Cooperative Biological Engagement Program of the United States Department of Defense – Defense Threat Reduction Agency
- Completed a broad zoonotic disease literature review and researched pre-existing, publicly available datasets (i.e., Food and Agriculture Organization Corporate Statistical Database, World Organisation for Animal Health's World Animal Health Information System) to use
- Conducted a network analysis on livestock trade and prevalence of three zoonotic diseases between 20 Western Asia countries in R, then transitioned the project to become my master's thesis
- Collected diagnostic samples from wild-caught bats for coronavirus surveillance in Turkey and Jordan in August 2019

National Center for Disaster Preparedness, New York, NY

January 2019 – May 2019

Graduate Research Assistant

Supervisor: Dr. Thomas Chandler, Research Scientist

- Built an open-access topical application using ArcGIS which will serve as supplemental material to FEMA Community Housing Recovery trainings throughout the United States
- Curated housing, community, and natural hazards Geographic Information Systems (GIS) assets based on existing literature regarding community housing recovery after disasters
- Cleaned and manipulated curated datasets in Stata
- Spatially joined housing, community, and natural hazards GIS datasets to a Census Tract geodatabase
- Invited to give an oral presentation on this novel tool as part of the Disaster Clusters session at the Earth Science Information Partners Annual Meeting in Tacoma, WA in July 2019

US Department of the Interior, Washington, DC

June 2018 – August 2018

National Park Service, Office of Public Health, Disease Prevention and Response Epidemiology Branch
Epidemiology Student Trainee

Supervisor: Dr. Maria Said, Epidemiology Branch Chief

- Developed content (e.g., infectious disease fact sheets) for the National Park Service internal and external websites
- Evaluated Appalachian Trail's current norovirus surveillance system to identify strengths and gaps
- Used CDC software EpiInfo to develop and deploy disease detection survey for norovirus cases in Yellowstone National Park
- Performed fieldwork (tick dragging) for multi-year CDC Lyme disease surveillance project in Rock Creek Park, Maryland

American Society for Microbiology, Washington, DC

June 2018 – August 2018

International Affairs Team Program Coordinator

Supervisor: Dr. Mark Lim, Director of International Affairs (Global Public Health Programs)

- Provided administrative and logistical support for three major programs: PEPFAR (CDC), Global Health Security Agenda (CDC), and Biosafety & Biosecurity (BS&S) strengthening (Department of State)
- Researched public and private funding opportunities for One Health and point-of-care HIV testing
- Spearheaded effort to create partnerships between ASM and multiple Chinese organizations, including China CDC, and universities

Land and Food Lab, McGill University, Montreal, QC, Canada

January 2018 – May 2018

Research Assistant

PI: Dr. Graham MacDonald, Department of Geography

- Developed a phosphorus footprint tool based on U.S. data which describes the phosphorus losses to the environment that are linked to individual or collective consumption patterns
- Compiled and manipulated data in Microsoft Excel to generate a set of calculations called virtual phosphorus factors (VPFs) for animal-based products
- Initially my independent research project for Fall 2017, continued on as Research Assistant in the lab for Winter 2018

CRDF Global, Arlington, VA

May 2017 – August 2017

Biosecurity Engagement Program (BEP) Team Intern

Supervisor: Andrew Parsons, Associate Director of the Biosecurity Engagement Program

- Researched impact of the political climate in the Middle East and North Africa region on biosecurity practices
- Assisted with proposal development by reviewing the budget and performing a copy review before sending to the BEP team Associate Director for final approval
- Conducted monitoring & evaluation of ongoing BEP projects based on DoS CTR-requested metrics, data mining, and conference and travel logistics
- Wrote summary reports and gave presentations on global health security events I attended

Experiment, New York, NY

July 2015 – January 2017

Community Team Intern

Supervisor: Cindy Wu, Co-Founder

- Reviewed and edited ~100 project scientific research proposals
- Ran two grant challenges (Seabirds and Public Health)
- Made five video storyboards for scientists running research campaigns and wrote a Science Story on one of the project researchers
- Answered ~50 daily client e-mails and assisted in project payouts to researchers

Biogeochemistry Lab, McGill University, Montreal, QC, Canada

January 2016 – April 2016

Research Assistant

PI: Dr. Tim Moore, Department of Geography

- Assisted with a PhD candidate's project on nutrient cycling in northern peatlands in Canada
- Researched, with focus on environmental and biogeochemical controls, importance of N₂ fixation as an N input in peatlands and ecological drivers controlling N₂ fixation
- Grinded and weighed 100 moss samples, then performed acid digestions of dried moss samples for further nutrient analyses (P, K, Mg, Ca)
- Submitted the 100 samples for N and P analyses to the McGill Environmental Chemistry and Soil Nutrient Lab

Maldonado Group, University of Michigan, Ann Arbor, MI

July 2015 – August 2015

Summer Research Assistant

PI: Dr. Stephen Maldonado, Department of Chemistry

- Collaborated with a professor to create a new undergraduate chemistry course at the university focused on creating thin-film solar cells with the hope of exposing students to an alternate form of solar cells made from perovskites, cheaper and simpler to make than other types of solar cells
- Planned the structure and content of the course, organized each laboratory session, then spent time in the laboratory to perform each week's lab to see if the allotted time and difficulty per lab were appropriate
- Created a Microsoft Excel how-to guide for the data analysis component of the course

Georgetown University, Washington, DC

June 2013 – August 2013

Lombardi Cancer Comprehensive Center Summer Research Assistant

PI: Dr. Judy Huei-yu Wang, Department of Oncology

- Worked with a population sciences researcher on a five-year randomized control trial (RCT) to test the effect of cultural targeting on increasing mammography screening specifically in Chinese immigrants
- Started a fundraising project in collaboration with CANCER101 to create a toolkit guiding newly-diagnosed breast cancer patients through treatments and care
- Translated ~20 phone interviews with breast cancer survivors from Chinese to English
- Made two informational pamphlets for breast cancer patients

PUBLICATIONS

Tseng, A. S., Sambai, B., Monroe-Wise, A., Mbogo, L. W., Ludwig-Barron, N. T., Masyuko, S. J., Chohan, B. H., Scott, J. D., Sinkele, W., Herbeck, J. T., Farquhar, C., & Guthrie, B. L. (2022). Assisted Partner Services for People Who Inject Drugs: Index Characteristics Associated With Untreated HIV in Partners. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 91(3), 269–275. <https://doi.org/10.1097/QAI.0000000000003062>

Hill, C.M., **Tseng, A.S.**, Holzhauer, K., Littman, A.J., & Jones-Smith, J.C. (2022). Association between health care access and food insecurity among lower-income older adults with multiple chronic conditions in Washington State, USA. *Public Health Nutrition*, 1–9. <https://doi.org/10.1017/S1368980022001240>

- Yeh, K.B., Tabynov, K., Parekh, F.K., Mombo, I., Parker, K., Tabynov, K., Bradrick, S.S., **Tseng, A.S.**, Yang, J.-R., Gardiner, L., Olinger, G., & Setser, B. (2021). Significance of High-Containment Biological Laboratories Performing Work During the COVID-19 Pandemic: Biosafety Level-3 and -4 Labs. *Frontiers in Bioengineering and Biotechnology*, 9. <https://doi.org/10.3389/fbioe.2021.720315>
- Mbogo, L.W., Sambai, B., Monroe-Wise, A., Ludwig-Barron, N.T., Guthrie, B.L., Bukusi, D., Chohan, B., Macharia, P., Dunbar, M., Juma, E., Sinkale, W., Gitau, E., **Tseng, A.S.**, Bosire, R., Masyuko, S., Musyoki, H., Temu, T.M., Herbeck, J., & Farquhar, C. (2021). Participation in methadone programs improves antiretroviral uptake and HIV viral suppression among people who inject drugs in Kenya. *Journal of Substance Abuse Treatment*, 108587. <https://doi.org/10.1016/j.jsat.2021.108587>
- Tseng, A.**, Tolentino, L., Seiler, J., Issema, R., Fisher, M., Rowlinson, E., Slaughter, F., Fajans, M., Fuller, S., Green, D., Loudon, D., Drake, A., Hahn, W., Ross, J.M., & Guthrie, B.L. Summary of Evidence Related to Travel, Hospitality and Service Industries, and COVID-19 Risk. Published April 6, 2021. <https://depts.washington.edu/pandemicalliance/covid-19-literature-report/in-depth-reports/>
- Guthrie, B.L., **Tseng, A.**, Tolentino, L., Seiler, J., Issema, R., Fisher, M., Fuller, S., Green, D., Loudon, D., Slaughter, F., Fajans, M., Rowlinson, E., Drake, A., Ross, J.M., Hahn, W.O. Summary of Evidence Related to the Risk of Other Infections in the Context of COVID-19. Published March 10, 2021. <https://depts.washington.edu/pandemicalliance/covid-19-literature-report/in-depth-reports/>
- Guthrie, B.L., **Tseng, A.**, Tolentino, L., Seiler, J., Issema, R., Fisher, M., Fuller, S., Green, D., Loudon, D., Drake, A., Hahn, W., & Ross, J.M. Summary of Evidence Related to Recreational, Youth, and Collegiate Sports and the Risk of COVID-19. Published February 24, 2021. <https://depts.washington.edu/pandemicalliance/covid-19-literature-report/in-depth-reports/>
- Tseng, A.**, Tolentino, L., Seiler, J., Issema, R., Fisher, M., Fuller, S., Green, D., Loudon, D., Drake, A., Hahn, W., Guthrie, B.L., & Ross, J.M. Summary of SARS-CoV-2 Novel Variants. Published February 5, 2021. <https://depts.washington.edu/pandemicalliance/covid-19-literature-report/in-depth-reports/>
- Guthrie, B.L., Seiler, J., Tolentino, L., Jiang, W., Fisher, M., Issema, R., Fuller, S., Green, D., Tordoff, D.M., Meisner, J., **Tseng, A.**, Loudon, D., Ross, J.M., & Drake, A.L. Summary of Evidence Related to Schools During the COVID-19 Pandemic. Published October 19, 2020. <https://depts.washington.edu/pandemicalliance/covid-19-literature-report/in-depth-reports/>
- Ross, J.M., Seiler, J., Meisner, J., Tolentino, L., Jiang, W., **Tseng, A.**, Fuller, S., Green, D., Tordoff, D.M., Loudon, D., & Guthrie, B.L. Summary of COVID-19 Long-term Health Effects: Emerging Evidence and Ongoing Investigation. Published September 1, 2020. <https://depts.washington.edu/pandemicalliance/covid-19-literature-report/in-depth-reports/>
- Yeh, K., Fair, J., Cui, H., Newman, C., Braunstein, G., Chanturia, G., Vora, S., Chittenden, K., **Tseng, A.**, Monagin, C., & Fletcher, J. (2019). Achieving health security and threat reduction through sharing sequence data. *Tropical Medicine and Infectious Disease*, 4(2). <https://doi.org/10.3390/tropicalmed4020078>

PRESENTATIONS

- **Speaker Presentation**, “SEAL Team Deployment: Chelan-Douglas Health District”, EPI 594 Field Epidemiology: Student Epidemic Action Leaders Team, University of Washington School of Public Health, November 2021

- **Speaker Presentation**, “SEAL Team Deployment: Washington State Department of Health School Outbreak Assessment of Policies and Procedures (SOAPP) survey”, EPI 594 Field Epidemiology: Student Epidemic Action Leaders Team, University of Washington School of Public Health, October 2021
- **Speaker Presentation**, “SEAL Team Deployment: Chelan-Douglas Health District”, EPI 583 Epidemiology Seminar Series, University of Washington School of Public Health, October 2021
- **Poster Presentation**, 9th Annual Epidemiology Master’s Student Day, Columbia University Mailman School of Public Health, October 2019
- **Speaker Presentation**, “Building a Community Based Housing Disaster Recovery GIS Application,” Earth Science Information Partners Annual Meeting, July 2019
- **Graduate Student Panelist**, Columbia University’s Biostatistics Epidemiology Summer Training (BEST) Diversity Program, June 2019
- **Poster Presentation**, “Creating a Knowledge Sharing Hub for Biosecurity Using an Online Collaborative Tool,” American Public Health Laboratories Annual Meeting, June 2018
- **Speaker Presentation**, “A Next-Generation Research and Knowledge Sharing Hub for Biosecurity,” Sequencing, Finishing, and Analysis in the Future (SFAF) Annual Meeting, May 2018
- **Poster Presentation**, “Examining the Impact of the Schistosomiasis Control Initiative on Praziquantel Coverage in Sub-Saharan African Schoolchildren,” American Society of Tropical Medicine and Hygiene 66th Annual Meeting, November 2017

AWARDS

- **U.S. National Institutes of Health, National Institute of Mental Health, Research Supplement to Promote Diversity in Health-Related Research**, Diversity Research Supplement Award for Dissertation Research, University of Washington, June 2022-2024
- **Exceptional Student Award**, Washington State Public Health Association, October 2021
- **U.S. National Institutes of Health, National Institute of Environmental Health Sciences, National Research Service Award (NRSA- T32 Predoctoral Fellowship)**, Biostatistics, Epidemiologic, and Bioinformatic Training in Environmental Health (BEBTEH) Training Grant, University of Washington, June 2021-2022
- **Epi Non-Travel Award**, Department of Epidemiology, University of Washington, September 2020
- **U.S. National Institutes of Health, National Institute of Environmental Health Sciences, National Research Service Award (NRSA- T32 Predoctoral Fellowship)**, Biostatistics, Epidemiologic, and Bioinformatic Training in Environmental Health (BEBTEH) Training Grant, University of Washington, June 2020-2021
- **Best Poster of Infectious Disease Epidemiology Award**, Columbia University’s 9th Annual Epidemiology Master’s Student Day, October 2019
- **Travel Award**, 2019 Earth Science Information Partners Summer Meeting, July 2019
- **Travel Award**, McGill University Science Undergraduate Society Ambassador Fund, October 2017
- **First Place Prize**, “NTI-GHSN Biosecurity Competition Proposal: Addressing Biosecurity and Associated Technological Risks by Creating a Database to Knowledge-sharing and Utility,” 2017 Nuclear Threat Initiative-Next Generation Global Health Security Network Biosecurity in the Global Health Security Agenda (GHSA) Competition for the 4th Annual High Level GHSA Ministerial Meeting in Kampala, Uganda, October 2017

COMMUNITY INVOLVEMENT

- **Volunteer**, Ballard Food Bank, August 2022 – Present
 - I help prepare, cook, and serve food at Ballard Food Bank’s Kindness Café and pack food for home delivery
- **Voluneer**, University of Washington, Department of Epidemiology Curriculum Committee, September 2021
 - Served on Anti-Racism & Equity, Diversity and Inclusion Sub-committee of the Curriculum Committee

- Reviewed proposed changes in course materials or classroom teaching for the upcoming fall quarter course, “EPI 530: AIDS: Multidisciplinary Approach”
 - Paired with a Department of Epidemiology faculty member to evaluate the course with
 - Completed a rubric to individually evaluate the course then discussed the rubric with the paired faculty member
- **Volunteer**, University of Washington Student Epidemic Action Leaders (SEAL) Team, December 2020 – September 2021
 - Received training through the University of Washington, Department of Epidemiology to develop knowledge and skills in communicable disease and applied epidemiology in preparation for field assignments at the Washington State Department of Health (WADOH) and local health jurisdiction including outbreak investigations and other public health preparedness and response activities affecting the community at the time
 - From December 2020-June 2021, I was activated on a SEAL Team field assignment at the WADOH, helping conduct the School Outbreak Assessment of Policies and Practices (SOAPP) survey to determine the incidence and transmission patterns of COVID-19 in Washington state schools
 - From August-September 2021, I was activated on a field assignment at the Washington State Chelan Douglas Health District to understand more about COVID-19 long-haulers through data collection and advanced analyses
- **Volunteer**, Ayi Can Help 501(c)(3) nonprofit organization, October 2020 – Present
 - Working with two US-based Taiwanese non-profit organizations, American Compassion Life Association and Global Compassion Life Foundation, to donate various PPE items to those in need over the past year
 - Coordinated PPE donations to Rainier Valley Midwives in Seattle, NicaPhoto in Nicaragua, to the Maasai Association in Kenya, and to the Chelan-Douglas Health District in Central Washington
 - For the Fall 2022 Back-to-School Project, I coordinated, packed, and delivered 46 backpack and school supply donations to the Refugee Women’s Alliance afterschool Science, Technology, Engineering, Art and Math (STEAM) program in Seattle, Washington
- **Volunteer**, Columbia COVID-19 Student Service Corps (CSSC), March 2020 – June 2020
 - The CSSC was created to support the NewYork-Presbyterian Hospital/Columbia University Irving Medical Center (NYP/CUIMC) health systems, their patients, and workforce through the COVID-19 pandemic
 - Volunteering with the Information Services Team, specifically focusing on Patient Education Materials and Design
 - Translating and proofreading educational materials on COVID-19 from English to Chinese
- **Application Reviewer**, EcoHealth Alliance EcoHealthNet Research Exchange Program, Spring 2020
 - Asked to serve as 1 of 12 application reviewers for the annual EcoHealthNet Research Exchange program
 - EcoHealthNet is an undergraduate and graduate-level global research coordination network, funded by the National Science Foundation, to bring together world-class research scientists from medical, ecology, veterinary, epidemiology, virology, anthropology, climate science, data science, and economics fields that will advance One Health research and education
- **Volunteer**, New York Cares, New York, New York, April 2019 – February 2020
 - Assisted the Cathedral Church of Saint John the Divine in New York City in preparing and serving a diverse menu of breakfast and lunch hot meals to over 200 homeless women and men
 - Helped the Chef prepare the hot meals for the first hour, including making sandwiches for brown bag lunches, then provided a one-hour buffet service for clients before cleaning up the dining area and kitchen during the last hour of the project
- **Competition Proposal Judge**, Nuclear Threat Initiative-Next Generation Global Health Security Network’s Biosecurity in the Global Health Security Agenda (GHSA) Competition, 2018 – 2022

- Asked to serve as an international biosecurity and biosafety subject matter expert judge in the annual Next Generation for Biosecurity Competition
- Reviewed 3-4 proposals then assessed the top-scoring papers at a roundtable by NTI, NextGen GHS Network, and the other judges
- **Meeting with the United States National Security Council**, The White House, Washington, DC, December 2017
 - Represented the Global Health Security Network Next Generation Network
 - Presented my biosecurity competition proposal on “Addressing Biosecurity and Associated Technological Risks by Creating a Database to Knowledge-sharing and Utility”
 - Discussed strategies to better train and engage the next generation of biosecurity leaders
- **Volunteer and Coordinator of Public Service Projects**, Evergreen Senior Care, Washington, DC, 2010 – 2018
 - Projects were three times a year: a back-to-school project, a Thanksgiving project, and a winter clothing drive
 - As Coordinator (2012–2014):
 - Collaborated with the DC Providence Hospital and the Saint Joseph’s School in Martinsburg, West Virginia
 - Raised donations to be able to purchase school supplies for the children of low-income families in these two areas and to purchase Thanksgiving meal products for these same families who cannot afford it
 - As Volunteer:
 - Purchased school supplies and Thanksgiving meal products
 - Assisted with the back-to-school packing of school supplies into backpacks at the end of each summer
 - Helped deliver packed backpacks to Second Story in Virginia which provides safe havens and opportunities for children, youth, and their families to grow and thrive
- **Volunteer**, Salvation Army FeedMore Program, Baltimore, Maryland, 2004 – 2018
 - Prepared hot and paper-bag meals for the homeless
 - Served hot meals and sandwiches on the Salvation Army FeedMore truck at 5 different stops around the city of Baltimore
 - Donated seasonal clothing, accessories, and travel-sized shower amenities as needed by the center