

Jinghan Zhang

611 W. 177th St. New York, NY 10033
Phone: (832) 868-9128 | E-mail: jinghan.zhang16@gmail.com

Education	<p>Columbia University Mailman School of Public Health, New York, NY M.P.H. in Health Policy and Management, Applied Biostatistics Certificate Expected May 2021 GPA: 3.94</p> <p>Cornell University, Ithaca, NY B.S. in Biomedical Engineering, English Minor, May 2019 GPA: 3.62 MCAT: 521</p>
Honors	<p>Dean's Scholarship, 2019-2021 Dean's List, 2015-2019 <i>Cum laude</i></p>
Professional Experience	<p>The John A. Hartford Foundation Intern – Supervisor: Dr. Terry Fulmer New York, NY, 2020 – Present</p> <ul style="list-style-type: none">• Contributing to the philanthropy's mission to improve health systems for older people, with a focus on age-friendly health systems, family caregiving, and serious illness & end of life• Acting as an aide to the President and other senior staff in grant development, project monitoring, and publication writing
Research/ Projects	<p>SubEvac LLC Managing Member – Mentors: Dr. Benjamin Rapoport, Dr. Jared Knopman New York, NY, 2020 – Present</p> <ul style="list-style-type: none">• Designing and manufacturing a biomedical device focused on creating a port for the minimally invasive evacuation of Subdural Hematomas to be presented at the Cornell BME Senior Design Project Showcase• Continuation of project after graduation with LLC formation and provisional patent submission <p>Brito Group, Department of Biomedical Engineering, Cornell University Undergraduate Researcher – Principal Investigator: Dr. Ilana Brito Ithaca, NY, 2016 – 2019</p> <ul style="list-style-type: none">• Lineage tracing of bacterial horizontal gene transfer through conferral of unique carbohydrate degrading genes (polysaccharide utilization loci) to target bacterial species through broad host range plasmids• Analysis of differential gene expression by establishment of minimal <i>Bacteroides</i> growth media and subsequent RNA sequencing and cDNA library preparation• Performance of transposon mutagenesis for gene knockout and subsequent synthesis of transposon library for sequencing analysis to label knockouts and identify genes of interest

Donnelly Group, Department of Materials Science, Cornell University
Undergraduate Researcher – Principal Investigator: Dr. Eve Donnelly
Ithaca, NY, 2016 – 2017

- Collaboration with Johns Hopkins Hospital to observe changes in bone composition due to conditions such as diabetes and osteoporosis
- Scanning of bone tissue images using Fourier Transform Infrared Spectroscopy (FTIR) and processing of different compositional elements, such as crystallinity perfection, using chemical imaging software (ISys)
- Utilization of statistical software (JMP) to quantify biological phenomena such as crosslinking in bones

Acharya Group, Department of Ophthalmology, Baylor College of Medicine
Assistant Researcher – Principal Investigator: Dr. Ghanashyam Acharya
Houston, TX, 2014 – 2015

- Application of nanomedicine in ophthalmology treatments through mice studies with different biomaterials
- Utilization of specialized templates to create uniform sized and shaped hydrogel nano/microparticles for development of targeted drug delivery systems

Publications American Society for Bone and Mineral Research Annual Meeting, 2017
Accepted abstract: Effects of Progressive Glycemic Derangement on Bone Tissue Composition in Postmenopausal Women

Teaching Activity **Columbia University**
New York, NY
Teaching Assistant, Integration of Science and Practice PUBH6070, 2020
Cornell University
Ithaca, NY
Teaching Assistant, Biomaterials and Tissue Interactions BME5820, 2019
Teaching Assistant, Biochemistry BIOMG3300, 2018
Teaching Assistant, Physiology of Human Health and Disease BME2010, 2018

Leadership Experience **Cornell University Design Build Fly Engineering Project Team**
Ithaca, NY
Structures Sub-team Lead, 2017 – 2019
Structures Sub-team Member, 2015 – 2017

- Facilitation of cooperation in a team of 30 students, whose goal is to apply knowledge of aerodynamics, fluids, and statics to design aircrafts which fulfill the objectives set by the annual American Institute of Aeronautics and Astronautics Design Build Fly competition
- Solidworks utilization to create computer-aided draft designs of aircrafts and structure mechanisms
- Aircraft construction through laser-cutting wood and working with various other materials such as composite carbon fiber and fiberglass

Theta Tau Professional Engineering Fraternity Kappa Delta Chapter

Ithaca, NY

New Member Educator, 2018

Vice President, 2017 – 2018

Recruitment Executive Chair, 2017

- Enhancement of the professional and personal capabilities of newly inducted members through an 8-week process consisting of development events, ranging from professional workshops such as résumé critiques and industry information sessions to philanthropic efforts through fundraisers for Dress for Success and Habit for Humanity
- Directing of internal affairs and organizational coordination, particularly aiding in communication between the various committees
- Propulsion of an intensive recruitment process which involves preparing case studies and conducting behavioral and technical interviews

**Community
Involvement**

Columbia University COVID-19 Student Service Corps

New York, NY

Telehealth Medicine Branch Member, 2020

- University-wide effort to address disparities and issues during the COVID-19 pandemic
- Onboarding of patients onto telehealth platforms and assistance with logistic and clinical concerns

Columbia University Vagelos College of Physicians and Surgeons Public Health Commute

New York, NY

Strategic Initiatives Committee Member, 2019 – Present

- Initiative by group medical students to transform the current Columbia Medical School curriculum to be more inclusive of public health themes and interdisciplinary collaboration
- Collaboration with administrators to apply systemic changes not only to the medical school, but also greater Columbia University Medical Center and beyond

New York-Presbyterian/Columbia University Irving Medical Center

New York, NY

Emergency Department Volunteer, 2019 – 2020

- Provision of emotional support and logistical guidance to patients and their visitors
- Improvement of quality of care and operational efficiency through assistance of hospital staff in their duties

Irving Institute for Clinical and Translational Research Project REACH

New York, NY

Fellow, 2019

- Engagement of the community senior center ARC Fort Washington through interventions implemented by a unique collaboration of interprofessional roles including clinicians, physicians, and community leaders

- Propagation of health communication materials to increase the outreach of a community-based organization

Professional Languages: English (Native), Mandarin (Fluent)
Qualifications Proficiencies: Java, Matlab, SAS, STATA, R, Bash, Microsoft Office