ADELINE SHIN

as5951@cumc.columbia.edu | 858–405–9664 | adelineshin.com

EDUCATION

Columbia Mailman School of Public Health, New York, NY **2019–2021**
M.S. Candidate in Biostatistics, Theory and Methods (Anticipated)

Carnegie Mellon University (CMU), Pittsburgh, PA **2015–2019**
B.S. in Chemical Engineering with University Honors
Additional Major in Biomedical Engineering, Minor in Drama
GPA: 3.52/4.00

EMPLOYMENT AND EXPERIENCE

New York City Department of Health and Mental Hygiene **June–Aug 2018**
HRTP Intern, Division of Informatics IT

- Analyzed National Provider Index (NPI) data warehouse of 50 million rows for widespread, transparent use within entire agency
- Condensed NPI data warehouse to relevant data using exploratory data analysis skills
- Independently learned SQL to program a stored procedure that would update the NPI database weekly

Eli Lilly and Company, San Diego, CA
Academic Intern, Protein Purification **June–Aug 2017**

- Investigated new purification scheme nominated as one of Eli Lilly's Top 100 Innovations of 2017; to be published with co–authorship

Academic Intern, Protein Crystallization **May–Aug 2016**

- Applied high–throughput crystallization of proteins to multiple projects, leading to discovery of 2 unique protein structures

University of Pittsburgh Medical Center **Sept 2015–March 2016**

- Aided patients in Emergency Department, offering supplies that might benefit their stay

PROJECTS

Exploring Taxi Habits of New Yorkers on Valentine's Day

- Analyzed data from the NYC Taxi and Limousine Commission to determine where New Yorkers were going for Valentine's Day in 2019 and built website to present findings
- Created model to estimate fare, visualized data using Leaflet maps, plotly graphs, and heatmaps

Medtronic Scoliosis Simulator

- Partnered with Medtronic spine team to design scoliotic model with mechanical and anatomical accuracy
- Model is to be further developed by R&D engineers to test surgical instruments and techniques, improving overall surgical outcomes

ChocLine Printer:

- Optimized flow parameters to improve 3D–printing of chocolate, designed 3D–printer for chocolate based on thermodynamic and rheological properties

LEADERSHIP

Society of Women Engineers (SWE) Mentoring Chair**:** Connected over 90 mentors and mentees as CMU SWE's Mentoring Chair, strategized for increased attendance of events, organized and hosted events related to personal and professional development

PhiDelt Buggy: Head Driver for buggy raceday at CMU, mentored new driver & took initiative in assisting with mechanics

SKILLS AND EXPERTISE

Programming: R (tidyverse), GitHub, Microsoft SQL, MATLAB, ASPEN Plus, CAD, Microsoft Office Suite, Python, GIMP, GAMS
Technical: 3D–Printing, Engineering Manufacturing and Prototyping, Laser Cutting, User Experience Design
Languages: English, Conversational Mandarin