

ADELINE SHIN

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EDUCATION

Columbia Mailman School of Public Health, New York, NY **2019–2021**

M.S. Candidate in Biostatistics, Track: Theory and Methods

Carnegie Mellon University (CMU), Pittsburgh, PA **2015–2019**

B.S. in Chemical Engineering with University Honors

Additional Major in Biomedical Engineering, Minor in Drama

EMPLOYMENT

Humana

May 2020 – Present

Data Scientist 2

- Managed analysis on projects related to social determinants of health with internal business partners and external vendors
- Led project on Medicaid members and health related social needs using HEDIS quality measures

Analytics Intern, Clinical Analytics

- Provided insight on member participation and pilot study results for food insecurity programs for members facing social determinants of health issues
- Designed lifetime value model to prioritize customer contact and expand Humana Pharmacy benefit to vulnerable populations
- Won inaugural Digital Health & Analytics (DH&A) Team Hackathon with a product for Humana members for the next pandemic

New York City Department of Health and Mental Hygiene

June–Aug 2018

H RTP Intern, Division of Informatics IT

- Condensed, analyzed, and updated National Provider Index data warehouse of 50 million rows for widespread and transparent use on projects within agency

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

Academic Intern, Protein Crystallization

May–Aug 2016

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

PROJECTS

Formulae.One

- Created analysis website for Formula One races, allowing users to visualize the differences between drivers and cars throughout races with graphs; built predictive model that determines final race order for each race

COVID-19 Modeling and Visualization

- Coordinate-wise optimization to create exponential model for COVID-19 case trends among countries
- Stratified countries by clusters, geography, and rate of increase in cases for creative visualization of graphs

Medtronic Scoliosis Simulator

- Designed adolescent scoliotic model with mechanical and anatomical accuracy as prototype to test instruments and improve surgical outcomes; model is to be used by Medtronic R&D engineers and further developed

ChocLine Printer:

- Designed chocolate 3D printer, optimizing for flow based on thermodynamic and rheological properties

SKILLS AND EXPERTISE

Data Science: R (tidyverse, shiny, plotly), Python (PySpark, pandas, SciPy, NumPy, scikitlearn), SAS, SQL, LaTeX, MATLAB, Hadoop, Hive, Predictive Modeling, Machine Learning, Website Creation, Web Scraping, GitHub, Microsoft Office Suite

Engineering: CAD, 3D-Printing, Laser Cutting, ASPEN, Prototyping, Consumer Product Design