Yingjie (Gary) Zhou

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EDUCATION

Brown University | Master of Science in Biostatistics

August 2021 - May 2023

• Member, Diversity and Inclusion Committee for the Department of Biostatistics

University of Pennsylvania | Bachelor of Science in Nursing, Cum Laude

August 2015 - May 2019

- Minors in Health Services Management and Hispanic Studies
- Winger/Fullback, Equipment Chair, Penn Men's Rugby Football Club
- Sustainability Chair, Philanthropy Board Member, Delta Kappa Epsilon Fraternity
- Member, Alpha Iota Gamma Healthcare Fraternity
- Member, Men Against Rape & Sexual Assault Club

Alameda High School | Salutatorian (Class Size: 461) | Alameda, California

August 2011 - May 2015

WORK EXPERIENCE

Graduate Research Assistant

October 2021 - Present

Brown University | Department of Biostatistics | Providence, RI

• Utilized novel topological data analysis techniques (e.g., Smooth Euler Characteristic Transform) to extract texture-based features from PET neuroimaging scans for prediction of Alzheimer's disease trajectory

Graduate Research Assistant

September 2021 - Present

Brown University | Center for Statistical Sciences | Providence, RI

• Modeled the effect of individualized adaptive radiotherapy on overall survival, progression-free survival, and local/regional failure for patients with non-small cell lung cancer using semiparametric methods

Advanced Methodology & Data Science Intern

June 2022 – August 2022

Novartis International AG | Global Drug Development | East Hanover, NJ

- Built data preprocessing pipeline to automatically import survival endpoints from ADaM oncology data
- Created Shiny application to model and visualize multi-state survival outcomes following CAR T-cell therapy
- Developed and presented on ggmodules, an R package that provides clinical teams with point-and-click interfaces to quickly customize, prototype, and deploy interactive dashboards for trials data

Clinical Research Coordinator

November 2019 – June 2021

University of Pennsylvania | Center for Weight and Eating Disorders | Philadelphia, PA

- Screened, enrolled, and monitored 120 study subjects for NIH-funded neuroimaging studies and investigational medication clinical trials sponsored by Eli Lilly and Company
- Designed and executed statistical analysis plans for complex surveys (e.g., NHANES) using SAS
- Co-authored 4 publications related to weight and eating disorders, including a systematic review of their genetic correlates
- Drafted literature reviews of policies, standards of practice, trends, and physiological considerations of bariatric surgery
- Managed 6 research assistants and taught data analysis methods to members of the Chao Lab

Undergraduate Research Assistant

September 2018 - May 2019

University of Pennsylvania | Perelman Center for Political Science and Economics | Philadelphia, PA

- Conducted textual and sentiment analysis of survey data drawn from Democratic and Republican national conventions to gain insight on protester policy concerns
- Investigated the economic impact of Medicare Part D implementation on racial and ethnic minorities using Medicare data
- Codified NYT-reported protests by congressional district to support GIS map of national protests from 1960 to 1995

Health Ambassador

June 2018 – August 2018

La Clinica de la Raza | Oakland, CA

- Improved colorectal cancer screening rates at the San Antonio Health Center through the creation of new workflows for chronic disease population management
- Evaluated the likelihood of missed appointments through data analysis and reduced no-show rates through patient outreach in Cantonese, Spanish, and Mandarin
- Developed and presented reports evaluating sitewide performance to management

Undergraduate Research Assistant

January 2017 – January 2018

Christopher Magoon | Philadelphia, PA

- Conducted foundational reporting and literature reviews of policies, standards of practice, trends, and physiological
 considerations in organ transplant allocation
- Supported claims of gender disparities in waiting times for organ transplants using statistical tests on UNOS data

PUBLICATIONS

Articles

- Joseph PV, Zhou Y, Brooks BE, McDuffie C, Agarwal K, Chao AM. Relationships among alcohol drinking patterns, macronutrient composition, and caloric intake: National Health and Nutrition Examination Survey 2017-2018. *Alcohol and Alcoholism*. 2022. In press.
- Chao AM, Zhou Y, Franks AT, Brooks BE, Joseph PV. Associations of Taste Perceptions with Tobacco Use, Marijuana Use, and Body Mass Index: Findings from the National Health and Nutrition Examination Survey. *Chem Senses*. 2021;46:bjab017. doi: 10.1093/chemse/bjab017
- Gupta SR, **Zhou Y**, Wadden TA, Berkowitz RI, Chao AM. A Systematic Review of Genetic Correlates of Weight Loss After Bariatric Surgery. *Obes Surg.* 2021;31(10):4612-4623. doi: 10.1007/s11695-021-05585-6
- Chao AM, **Zhou Y**, Wei X, Wisdom-Goulbourne T, Dowd M, Compher C. Nutrition Education in Primary Care Adult and Family Nurse Practitioner Programs. *Nurse Educ*. 2022;47(1):47-50. doi:10.1097/NNE.0000000000001050
- Sockolow PS, Bowles KH, Pankok C Jr, Zhou Y, Potashnik S, Bass EJ. Planning the Episode: Home Care Admission Nurse Decision-Making Regarding the Patient Visit Pattern. Home Health Care Manag Practice. 2021;33(3):193-201. doi:10.1177/1084822321990775

Abstract/Poster Acceptance

- Sexton C, **Zhou Y**, Bach R, Chao AM. Perceived Food Environment and Addictive-like Eating Behaviors in Adults with Obesity. Abstract accepted and will be presented at the ENRS 34th Annual Scientific Session. 2022.
- Zhou Y, Gupta S, Pearl RL, Tronieri JS, Wadden TA, Williams NN, Allison KC, Chao AM. A Comparison of Dieting
 and Weight Histories in Patients with and without Binge Eating Disorder Seeking Bariatric Surgery. Abstract and poster
 accepted and presented at The Obesity Society Annual Meeting: ObesityWeek® Interactive. 2020.

MATH AND STATISTICS COURSEWORK

- Bayesian Statistical Methods
- Introduction to Bayesian Data Analysis
- Statistical Learning and Big Data
- Statistical Inference I
- Causal Inference and Missing Data
- Modern Regression
- Longitudinal Data Analysis
- Multilevel Data Analysis
- Applied Generalized Linear Models
- Introduction to Python for Data Science
- Statistical Programming with R

- Data Analytics and Statistical Computing
- Forecasting Methods for Management (Time-Series)
- Probability
- Linear Algebra and Ordinary Differential Equations
- Partial Differential Equations
- Linear Algebra (Proof-Based)
- Multivariable Calculus
- Introductory Business Statistics I
- Introductory Business Statistics II
- Sample Survey Design
- Practical Data Analysis

HEALTHCARE MANAGEMENT COURSEWORK

- Management and Economics of the Pharmaceutical, Biotech, and Medical Device Industries
- Healthcare Management and Strategy
- Microeconomics
- Forecasting Methods for Management

- Applied Health Care Accounting and Business Planning
- Integrated Pathophysiology, Pharmacology, and Therapeutics
- Healthcare Entrepreneurship
- Healthcare Systems

INPATIENT CLINICAL ROTATIONS

- Hospital of the University of Pennsylvania Neurology Unit
- Pennsylvania Hospital Psychiatry Unit
- Hospital of the University of Pennsylvania Transplant/Bariatric Surgery Unit
- Children's Hospital of Pennsylvania Pediatric Surgical Unit

- Hospital of the University of Pennsylvania General Medicine/Surgical Unit
- Hospital of the University of Pennsylvania Labor and Delivery Unit

TECHNICAL SKILLS

Excel | R | SAS | Python | STATA | SQL | Sparklyr | LaTeX | REDCap | E-Prime | Epic | Gitlab | FSL | Overleaf