AMY P. WU

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EDUCATION

MS BIOSTATISTICS, *UNIVERSITY OF IOWA, College of Public Health* — Iowa City, IA — Graduated May 2024
- Leon F. Burmeister Memorial Scholarship for exceptional graduate students in Biostatistics (2 awarded/year)
- Full-funding + stipend (2 years)
- Course Highlights: Computing in R, Computing in SAS, Statistical Methods in Clinical Trials, Longitudinal Data Analysis, Geospatial Programming in Python, Causal Inference

BA BIOLOGY, *BOSTON UNIVERSITY, Cum Laude* — Boston, MA — Graduated May 2021
- Arthur G. B. Metcalf Merit Scholarship
- James Patrick Devlin Award for outstanding essay writing (2 awarded/year)
- Specialization: Cellular & Molecular Biology, Genetics
- Minor: Applied Statistics
- Course Highlights: Statistics in R, Multiple Linear Regression, Analysis of Variance, Introduction to Computer Science in Python, Linear Algebra

EXPERIENCE

GRADUATE RESEARCH ASSISTANT, *UNIVERSITY OF IOWA,* — Iowa City, IA — Aug 2022–Present — Part-time (20 hours/week)
Supervisor: Dr. Kai Wang | Collaborators: Dr. Elliot Sohn, Dr. Margaret Strampe
- Performed preliminary exploratory data analysis in R for researchers at UI ophthalmology clinics
- Applied fixed effects models, random effects models, generalized linear regressions, ANOVA, two sample t-tests to wet age-related macular degeneration (AMD) patient data and patients with albinism
- Analyzed associations between eye injection frequency and prognosis of disease and patient genotype in wet-AMD patients
- Analyzed variability of 3-channel visual-evoked potential in patients with albinism

CLINICAL DATA OPERATIONS ASSOCIATE, *FOUNDATION MEDICINE INC* — Boston, MA — Feb 2022–Jul 2022 — Full-time (40 hours/week)
- Ensured quality standards for data reporting, including compliance with HIPAA, GDP, and GCP
- Communicated process and protocol with clients and stakeholders
- Identified and raised issues relating to data integrity
- Streamlined data quality control process by introducing Smartsheets protocol to clients
- Collaborated cross-functionally with bioinformatics, data management, and lab operation subteams

CLINICAL DATA ANALYST, *GLAXOSMITHKLINE, Extended Internship* — Cambridge, MA — Jun 2021–Oct 2021 — Full-time initial 2 mo. (40 hours/week) — Part-time remaining (<20 hours/week)
- Contributed code in R to internal GitHub repository
- Revised internal GWAS databases and phenotypic datasets
- Critically evaluated genomic literature for metadata procurement
- Systematically reviewed Biobank Japan, UK Biobank, 23andMe, FinnGen for genomic meta-analyses

OFFICE ASSISTANT DEPARTMENT OF ALUMNI RELATIONS, *BOSTON UNIVERSITY* — Boston, MA — Oct 2021–Dec 2021 — Part-time (<20 hours/week)
- Managed email communications between departments and external alumni connections
- Answered alumni questions via telephone
- Assisted with other administrative tasks, such as calendar and meeting organization

BIOMEDICAL ENGINEERING OFFICE ASSISTANT, *BOSTON UNIVERSITY, Work Study Position* — Boston, MA — Sep 2017–May 2018 — Part-time (10-15 hours/week)
- Managed email communications between departments for package delivery
- Delivered mail between labs and departments
- Assisted with other administrative tasks

PRESENTATIONS & PRECEPTORSHIP

U.S. CITIZENSHIP

OPEN TO ANY DOMESTIC RELOCATION

DR. EMILY ROBERTS, *ASSISTANT PROFESSOR*, Preceptorship Advisor   emily-roberts-1@uiowa.edu
DR. KAI WANG, *PROFESSOR*, Graduate Research Supervisor   kai-wang@uiowa.edu
DR. JACOB OLESON, *PROFESSOR*, Director of Graduate Studies   jacob-oleson@uiowa.edu
DR. JOE CAVANAUGH, *PROFESSOR*, Department Head   joe-cavanaugh@uiowa.edu
   Complete references provided in separate document or available upon request.

CAUSAL MEDIATION & SURVIVAL ANALYSIS OF RACE, TELOMERE LENGTH, & MORTALITY IN NHANES SUBSET, *UNIVERSITY OF IOWA (2023-2024)*   Advised by:
Dr. Emily Roberts
Dr. Belinda Needham

- Analyzed causal relationships between race, telomere length (TL), and mortality using a combination of survival and mediation analysis in black and white Americans in the 1999-2000 and 2001-2002 National Health and Nutrition Survey (NHANES) samples.
  - Presented at ENAR Spring Conference (2024)
  - Presented at ASA Iowa Chapter Poster Competition (2024) and won best presentation

MENDELIAN RANDOMIZATION ANALYSIS, ALZHEIMER'S SUSCEPTIBILITY & COVID SUSCEPTIBILITY, *BOSTON UNIVERSITY (2020-2021)*   Advised by:
Dr. Dean Tolan

- Researched the association between Alzheimer's and COVID-19 susceptibility using known genetic markers using Mendelian Randomization (MR) techniques. Obtained genomic data via GWAS databases (NIH, NCBI, MRBase), conducted statistical analysis in R (MRPracticals, TwoSampleMR, ieugwasr).

SKILL HIGHLIGHTS

PROGRAMMING LANGUAGES: R, SAS, PYTHON, ARCPY, ARC-GIS PRO, JUPYTER NOTEBOOK
ANALYTICAL SKILLS: ANOVA, GLM, MIXED EFFECTS, RANDOM EFFECTS, GEE, LONGITUDINAL, SURVIVAL, LOGISTIC REGRESSION, DATA CLEANING, DATA VISUALIZATION
COMMUNICATION SKILLS: strong written & oral skills, effective communication of statistical principles to non-statisticians

LEADERSHIP

VICE PRESIDENT, *BIOSTATISTICS STUDENT ORGANIZATION (BSO)*
- Organized Biostatistics student body and elective board
- Delegated task committees dedicated to student academic & social success
- Attended college-wide student ambassador meetings & facilitated Admitted/Prospective Student Day events

PODCAST INTERVIEWER/REPORTER, *COLLEGE OF PUBLIC HEALTH STUDENT PODCAST*
Episode highlights:
- Using P-Values in Public Health Research w/Dr. Joe Cavanaugh
- Neighborhood Centers of Johnson County (NCJC) Serving Refugee & "New Iowan" Populations
- Asian American Mental Health Stigmas
- Fare Free Iowa City w/Director of Transportation Services

DEI OFFICER, *BIOSTATISTICS STUDENT ORGANIZATION*
- Attended diversity, equity, and inclusion committees at the College of Public Health on behalf of BSO
- Communicate DEI-related events to BSO and CPH students

GRADUATE STUDENT AMBASSADOR, *COLLEGE OF PUBLIC HEALTH*
CPHGSA COMMITTEE MEMBER *(COLLEGE OF PUBLIC HEALTH GRADUATE STUDENT ASSOCIATION)*

AWARDS

LEON F. BURMEISTER MEMORIAL SCHOLARSHIP, *UNIVERSITY OF IOWA 2023-2024*
- For exceptional graduate students in Biostatistics (2 awarded/year)

IPHPRP GLOBAL HEALTH CASE COMPETITION, *INSTITUTE OF PUBLIC HEALTH RESEARCH & POLICY 2024*
- 3rd place prize for Greenhouse-Aquaculture Collective Proposal for Sustainable Fishing Practices in Kenya

ARTHUR G. B. METCALF MERIT SCHOLARSHIP, *BOSTON UNIVERSITY 2018-2021*
- Merit scholarship based on GPA

JAMES PATRICK DEVLIN AWARD, *BOSTON UNIVERSITY 2018*
- For outstanding essay writing (2 awarded/year)

ASA IOWA CHAPTER CONFERENCE, *AMERICAN STATISTICAL ASSOCIATION 2024*
- Iowa Chapter American Statistical Association (ASA) Best Poster Presentation Award