

Hansen Zhang

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WORK EXPERIENCE

- UW Office of Minority Affairs and Diversity Instructional Center** Nov. 2024 - Current
Math & Statistics Tutor Seattle, WA
- Tutor subjects such as statistics, probability theory, calculus and linear algebra
- University of Washington - Department of Statistics** Sept. 2024 - Dec. 2024
STAT 303 Grader Seattle, WA
- Grade assignments and provide feedback to students in order to help their persuasive writing skill
- University of Washington - Department of Statistics** Sept. 2024 - June 2025
Peer Mentor Seattle, WA
- Provide mentorship, guidance and advice to first year direct admit mentees in the Statistics major
- Fred Hutchinson Cancer Center - McCrone Lab** Aug. 2024 - Current
Undergraduate Intern Seattle, WA
- Using phylodynamic and phylogenetic techniques to study virus evolution
- Kumon North America, Inc.** June 2022 - Sep. 2022
Teaching Assistant Austin, TX
- Tutoring K-12
 - Graded papers and assisted with basic math, writing and reading skills
- Book People Internship** Mar. 2019 - Apr. 2019
Intern Austin, TX
- Engaged with customers, assisted with sales, shelving, receiving, marketing and accounting

EDUCATION

- University of Washington** June 2025
BS, Major in Statistics with Honors, Minor in Math Seattle, WA
- Dean's List all academic quarters; 3.85/4.0 GPA
 - Co-president of Tzu-Ching Collegiate Association (TCCA), a volunteering and charity student organization. We are a collegiate branch of the international humanitarian organization, Tzu Chi foundation.
 - Activities include: annual VeggieFest (~230 attendees in 2023), Ronald McDonald House meal prep, homeless distributions at Union Gospel Mission, hosting vegetarian dinners, spreading awareness of environmental degradation and sustainability practices etc.
 - Calisthenics club executive team

RESEARCH EXPERIENCE

- Undergraduate Thesis - UW Statistics Department** June 2024 - May 2025
Undergraduate Researcher University of Washington
- Advisor: Dr. Thomas Richardson
 - Investigate the variation dependence between relative risk, risk difference, and baseline risk, and explore how it complicates model formulation. Study the proposed conditional log odds-product as a preferred nuisance model and understand how it resolves issues related to variation dependence.
 - Conduct simulation studies to illustrate the proposed methods and validate their effectiveness. Use the R package brm available on CRAN to implement the proposed methods.

Statistics & Probability Association Directed Reading Program

Spring Quarter 2024

Undergraduate Researcher

University of Washington

- Studied optimization techniques in multiple regression and statistical learning, such as variable selection by Ridge and LASSO
- Authored a paper on a comparison of methods of statistical inference for regression coefficients using data thinning via convolution and traditional data splitting

Statistics & Probability Association Directed Reading Program

Winter Quarter 2024

Undergraduate Researcher

University of Washington

- Independently studied the topics of random matrix theory, free probability and the semicircle law with mentorship from a UW Statistics PhD student (Ethan Ancell)

CONFERENCES

Tzu-Ching Collegiate Association (TCCA) Leadership Conference

August 2023

San Dimas, CA

- Presented project for a climate hackathon to judges and 60+ staff and attendees
- Attended classes and workshops on leadership skills

AWARDS

- Purple & Gold Scholarship
- Academic Achievement Award - Statistics Honors

CERTIFICATIONS, SKILLS & INTERESTS

- **Introduction to Genomic Technologies** (Johns Hopkins), *Issuer - Coursera* **June 2024**
- **Python for Genomic Data Science** (Johns Hopkins), *Issuer - Coursera* **July 2024**
- **Algorithms for DNA Sequencing** (Johns Hopkins), *Issuer - Coursera* **July 2024**
- **Programming Languages**
 - R
 - Python
 - LaTeX
- **Skills:** conflict resolution amongst club executives, public speaking, rigorous problem-solving & proof writing
- **Interests:** Cooking, movement and fitness, mathematics, biology, kinesiology, physiology, psychology, neuroscience, reading, writing, philosophy, self-help, language-learning, mentoring
- **Languages:** English (native), Mandarin (intermediate)