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EDUCATION

University of California, Santa Barbara   September 2018 – June 2022
- B.S., Biochemistry-Molecular Biology
- B.A., Statistics and Data Science

University of Washington   September 2022 – March 2024
- M.S., Biostatistics

PROJECTS

- Machine learning project
  - Explored potential causes for poverty using the US census data
  - Collaborated with a partner and performed data wrangling & visualization, applied PCA, built several machine learning models and compared models using dbplyr and tidyverse packages
  - Conclusion: The logistic regression model and the Lasso model had smallest error rates. Ethnicity, education level and occupation were significant to poverty level.
- Biometry project
  - Independently examined what might affect maximum longevity by analyzing the AnAge dataset in R and wrote a 9-page report
  - Performed literature review, data transformation and nonparametric tests to select out 2 relevant variables that correlate with longevity from 17 variables
  - Conclusion: animals live in captivity and those with slower male maturity rate have longer longevity
- Differential Expression Analysis
  - Used R package DESeq2 to compare RNAseq results for Adar1-null and control B16 mouse melanoma tumor cells with and without stimulation with IFN-beta
  - The result was visualized by PCA plot and MA plot
  - Conclusion: Without ifnb stimulation, the control and the adar1 null cells are not significantly different. adar1 null cells and the control cells with ifnb stimulation are significantly different

EXPERIENCE

Exam Review Tutor   Seattle, WA. September 2022 – Present
- Prepared practice problems and held 1.5-hour online math review sessions for over 100 undergraduate students

Teaching Assistant of An Upper Division Biostatistics Course   Seattle, WA. September 2022 – December 2022
- Assisted professor with weekly sections, held office hours to answer students' questions
- Collaborated with professor and other TAs in homework grading

Staidson (Beijing) Biopharmaceutical Co. Ltd,   Beijing, China

Intern in Clinical Operations Department   June 2021 – September 2021
- Completed clinical data validation for data with thousands of observations using RStudio and Excel
- Independently studied relevant clinical trial regulations and R packages
- Assisted the establishment of ~10 pieces of standard operating procedures for the department
- Promoted communication efficiency by helping colleagues to communicate with other foreigner colleagues during meetings