JUSTIN HSIE

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EDUCATION

HARVARD UNIVERSITY MOOC | UNIVERSITY OF CALIFORNIA AT BERKELEY MOOC | UDEMY

CS50 - Intro to Computer Science | CS 61B - Data Structures | The Web Developer Bootcamp   Feb 2021

COLUMBIA UNIVERSITY MAILMAN SCHOOL OF PUBLIC HEALTH, New York, NY

Master of Science (MS), Biostatistics, Theory & Methods Track   May 2020
Relevant Coursework: Biostatistical Methods, Data Science, Longitudinal Analysis, Epidemiology, SQL & Relational Databases, Statistical Inference, Probability

UNIVERSITY OF WASHINGTON, Seattle, WA

Bachelor of Science (BS), Biology, General Track   June 2017

RESEARCH EXPERIENCE

COLUMBIA UNIVERSITY MEDICAL CENTER, New York, NY   January 2020 - May 2020
Graduate Research Assistant

- Built longitudinal analysis models to measure 15 primary and secondary outcomes to evaluate effectiveness of HIV intervention on teens' sexual activity in collaboration with principal investigator
- Developed GEE models (marginal linear models with repeated measures) and discovered 4 significant intervention treatments within measured outcomes
- Merged, cleaned, and visualized data of 397 study participants of randomized controlled trial (RCT) in R to perform exploratory analyses on balance of baseline characteristics
- Crafted statistical interpretation of model parameter estimates for 15 measured outcomes into final report culminating in practicum project

ACADEMIC PROJECTS - COLUMBIA UNIVERSITY

Predicting Cancer Mortality Rate - *Biostatistical Methods I*   *Dec 2018*

- Produced diagnostic plots for over 3000 rows of data to verify normality and homoscedasticity in R
- Reduced number of explanatory variables from 25 to 9 through literature search and criterion/stepwise model selection to test predictive ability of chosen model with cross-validation

Predicting Chance of Admission with Application Data - *Data Science II*   *May 2019*

- Formulated 5 different linear & non-linear machine learning models to produce best predictions

Predicting Influential Factors in Colectomy Complications - *Data Science I*   *Dec 2018*

- Tidied and analyzed over 10,000 rows of data to clearly visualize correlations and exploratory plots using R and tidyverse

ADDITIONAL EXPERIENCE

SAFEWAY PHARMACY, Seattle, WA   September 2016 - December 2016
Pharmacy Assistant

- Prepared over 70 medications a day with head pharmacist to serve over 300 customers in community

SKILLS

Technical: R (tidyverse), SQL, Python, SAS, Git/GitHub, Command Line, Microsoft Excel, Access
Skills: Hypothesis Testing, Data Analysis, Visualization, Data Manipulation, Linear/Logistic Regression, Longitudinal Analysis, Machine Learning
Certificates: Statistics with SAS - *Coursera Apr 2021*, The Web Developer Bootcamp - *Udemy Dec 2020*