Srividya Suresh

srividya.suresh92@gmail.com|

Skills

R: ggplot, lme4, dplyr, tidyr, RLRsim, lattice

Python: matplotlib, NumPy, nltk, SpaCy, sklearn, seaborn, pandas, SciPy   basic: keras, tensorflow, pytorch

Research, Experiment Design, Machine Learning, Statistical Analysis, Hypothesis Testing, Exploratory Data Analysis, Regression Modeling

Work Experience

Intervention Project (July 2019-Present): Alleviate student intimidation in introductory physics

- Built models to analysis the effects of social factors on grades and grades on social factors
- Used k-means cluster analysis to identify student groups based on grades and social factors, and found two clusters behave inconsistently based on predictions from previous research.
- Designed and developed a semester long intervention experiment for two academic terms, including data collection and data cleaning
- Examined student written survey responses using natural language processing techniques
- Performed empirical analysis of the relationship between social factors, student demographics, and student grades.
- Reported findings and collaborated with psychology department to improve social factor scale measurements, and to improve predictions of student grade outcomes.

Undergraduate Retention (September 2017-July 2019): Study effects of Instructors on Student Grade Outcomes

- Simulated student grade outcomes based on instructors using hierarchical linear modeling and found that instructors effects are small but significant.
- Used statistical techniques for hypothesis testing, including A/B testing, to validate and interpret data
- Worked with large unstructured data: including data extraction, data cleaning and descriptive analysis

Leadership

Polaris Mentorship Program for Physics/Astronomy   Fall 2020-Present

- Graduate student mentoring for undergraduate students from underrepresented communities to increase retention and provide support for academic growth and development

Society of Women in Physics (SWiP)   Fall 2015-Spring 2018

- Organized an alumnae panel on transitioning from academia to industry
- Co-organized various panels on professional development to aid graduate students and post-docs
- Facilitated discussions on climate and diversity in physics in a weekly informal chat

Education

PhD Physics, the Ohio State University, Expected Summer 2021

MS Physics, the Ohio State University, Summer 2018

University Fellowship, the Ohio State University, Fall 2015-Summer 2016

BA Physics with Honors, Bryn Mawr College, May 2014