

Shune Kawaoto

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Education

M.S. Applied Statistics 2024 - Present
California State University, Long Beach

B.S. Statistics and Data Science 2024
University of California, Los Angeles

Work Experience

Teaching Associate August 2024 - Present
Mathematics and Statistics Department at California State University, Long Beach

- Assisted in teaching fundamental statistical concepts including beginning algebra, probability, and data analysis.
- Supported students in understanding and applying measures of central tendency, variability, and linear models.
- Guided students in creating and interpreting graphical and tabular displays of data.
- Facilitated discussion sections, answering questions, and clarifying complex topics to enhance student comprehension.
- Graded assignments and exams, providing detailed feedback to support student learning and improvement.
- Held office hours to offer additional help on course materials and problem-solving techniques.

Statistical Consultant April 2024 - June 2024
Chatterbaby

- Conducted comprehensive literature reviews on infant cry classification and statistical modeling techniques.
- Collected hundreds of thousands of crying baby audio, converting, filtering, and cleaning audio files to usable data quality.
- Developed and validated machine learning models, including K-Nearest Neighbors (KNN), Support Vector Machines (SVM), and XGBoost, achieving a baseline accuracy of 78.79%.
- Implemented both “good” and “bad” statistical practices to compare the impact on model performance and highlight the risks of data manipulation in research and competitors.
- Applied feature selection techniques, such as Principal Component Analysis (PCA), to reduce data dimensionality and optimize model performance.
- Conducted exploratory data analysis to identify key trends and challenges in infant cry classification, including class imbalances and mislabeling.
- Analyzed the ethical implications of statistical practices in research, emphasizing the importance of adhering to sound methodologies.

UCLA Relevant Coursework

STATS 20	Introduction to Statistical Programming with R
STATS 100A	Introduction to Probability
STATS 100B	Introduction to Mathematical Statistics
STATS 100C	Linear Models
STATS 101A	Introduction to Data Analysis and Regression
STATS 101B	Introduction to Design and Analysis of Experiment
STATS 101C	Introduction to Statistical Models and Data Mining

STATS 102A	Introduction to Computational Statistics with R
STATS 102B	Introduction to Computation and Optimization for Statistics
STATS 102C	Introduction to Monte Carlo Methods
STATS C155	Applied Sampling
STATS C173	Applied Geostatistics
COM SCI 31	Introduction to Computer Science I
COM SCI 32	Introduction to Computer Science II
MATH 115A	Linear Algebra
MATH 131A	Analysis
GEOG 7	Introduction to Geographic Information Systems

CSULB Relevant Coursework

STAT 510	Regression Analysis
STAT 520	Statistical Inference
STAT 530	Experimental Design

Projects

Predicting Electric Vehicle Prices

Created a linear model to predict the price of EV vehicles based on their configurations such as top speed, mileage, charge speed, etc.

Predicting the Alcoholic Status of Individuals From Health Data

Used machine learning models to impute and predict individuals' alcoholic statuses with a 73% predicting rate.

Analysis of Lighting Conditions Affecting Perception of Photos

Used a random forest model to predict how different lighting conditions affects the perceptions of photos.

Technical Experience

C++, R, Python, SQL, Stata, GIS, Git, Excel, SPSS