CHRISTOPHER FU

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EDUCATION

University of California, Los Angeles (UCLA) Expected Graduation Date: June 2026
M.S. Data Science in Biomedicine Overall GPA: 4.00/4.00
Relevant Coursework: Foundations of Data Science, Recent Research in Machine Learning in Medicine
Awards: University of California, Los Angeles Warren Alpert Computational Biology and Artificial Intelligence Scholar, Dean's Honor List

University of California, Los Angeles (UCLA) Graduation Date: June 2024
B.S. Data Theory Overall GPA: 3.79/4.00

PROFESSIONAL EXPERIENCE

UCLA Biodesign **Los Angeles, CA**
Biodesign AI Fellow September 2024 - Present

- Leveraged SQL to process, clean, and integrate OB/GYN patient flow data from a dataset of 80,956 rows spanning 2022–2024; conducted exploratory analysis using visualizations to uncover trends in bed usage, delivery patterns, and departmental efficiency metrics.
- Designed, implemented, and evaluated an LSTM model to forecast weekly OB capacity trends, training on 2022–2023 data; achieved a test RMSE of 17.69, providing actionable insights to optimize resource and staff allocation, as well as enhance operational planning.
- Partnered with a team of six to analyze patient flow data within a school's comprehensive data repository; developed a project strategy, presented findings, and proposed actionable next steps, emphasizing opportunities to improve efficiency and data-driven decisions

Children's Hospital of Orange County (CHOC) **Orange, CA**
Data Science Intern June 2023 - August 2023

- Analyzed demographic disparities among diagnosed anxiety patients by constructing multiple linear regression models using Python's Statsmodels and SciPy libraries, achieving 77% accuracy; conducted t-tests and other statistical analyses to identify actionable insights.
- Led a team of four data science interns in delivering data-driven insights to physicians through visually engaging presentations; created bar plots, box plots, model summary tables, and geographical heat maps to highlight trends and promote predictive measures in mental health
- Developed and proposed detailed action plans for deploying advanced unsupervised machine learning techniques to uncover latent factors contributing to anxiety disorders in pediatric patients, supporting data-driven interventions and improved outcomes.

PROJECTS

Fingerhut Website Data Analysis **Los Angeles, CA**
Project Member January 2024 - March 2024

- Conducted exploratory data analysis (EDA) using Python libraries (numpy, pandas, matplotlib, seaborn, sklearn, scipy) and presented findings, delivering actionable insights to optimize Fingerhut's website interface for enhanced customer engagement and retention.
- Applied advanced feature engineering techniques, including vectorization of stage data, oversampling for class imbalance, and PCA for dimensionality reduction; developed Logistic Regression, Random Forest, and K-means models to evaluate feature importance
- Collaborated with a team of four to analyze Fingerhut customer journey data collected from the company's website, merging datasets to create a comprehensive view of navigation stages and labeling paths based on alignment with the company's ideal customer journey.

2022 ASA DATAFEST AT UCLA **Los Angeles, CA**
Project Lead April 2022 - May 2022

- Analyzed datasets for the Yale School of Medicine's play2PREVENT visual novel video games by programming in Python and R to offer insight towards health improvement, identifying disparities in user retention rate for 11-year olds vs other pre-teens by at least 20%
- Spearheaded collaboration in the project using Google Colab to generate Python code in Jupyter Notebook and RStudio containing histograms, line charts, box charts, and LaTeX tables of our exploratory data analysis to facilitate a shared platform for organization
- Aggregated project work into a Microsoft PowerPoint presentation incorporating Coolors color palettes to impart a comprehensible data visualization of our findings using libraries such as Matplotlib and Seaborn for the judges and audience to deliver an intelligible discussion

SKILLS

Programming: Python (NumPy, Matplotlib, SciKit-Learn, Pandas, PyTorch, Jupyter, SciPy), R Studio (ggplot2), SQL (Azure Data Studio)
Data Analysis & Machine Learning: Regression Analysis, Classification Models, Unsupervised Learning, Neural Networks (LSTM)
BI & Visualization Tools: Tableau, MS Excel, Google Sheets, MS Powerpoint