Julian M. Lehrer

707-490-9354 | julianlehrer.me | jmlehrer@ucsc.edu

EDUCATION

University of California, Santa Cruz

Applied Mathematics, M.S. — *Fall 2018 - Spring 2021*

Computational Mathematics, B.A. — *Fall 2021 - Spring 2022 (expected)*

EXPERIENCE

Undergraduate Researcher | *UCSC Genomics Institute — Santa Cruz, CA*

- Researching functional depth, developing methods for probabilistic order statistics
- Analyzing RNA-seq data with non-parametric functional depth methods, running on a distributed compute cluster
- Developing Python library for statistical depth analysis on distributed edge devices

Data Science Intern | *Blackthorn Therapeutics — San Francisco, CA*

- Used statistical modeling to research which features most heavily impact depression and anxiety rates across the US
- Unsupervised learning methods (clustering) to analyze which states are most heavily affected by rates of depression, unemployment and other factors caused by economic crisis

Data Science Intern | *Startup Genome — San Francisco, CA*

- Created deep learning model with Python (Pandas, Tensorflow, NLTK) to classify startup sectors from funding data
- Wrote data engineering pipeline to generate and visualize funding metrics for clients

PROJECTS

Project Portfolio | https://github.com/jlehrer1/Projects

Transparency Project (1st Place CruzHacks 2020)

- A fully interactive website that brings clarity to the political process through interactive data visualizations. Build with Plot.ly and Dash, and hosted live on GCloud.

InstantEDA

- Python package to instantly generate common exploratory data plots without cleaning your DataFrame
- Built with Python (pandas, numpy, plotly), published on PyPi

DrivenData: DengueAI

- Used a combination of engineered lagged features and fourier models to achieve a top 11.8% score globally (so far) on the DrivenData Dengue fever prediction contest
- Built with Pandas, Scikit-learn and Tensorflow

SKILLS

Programming: Python (scikit-learn, Pandas, Numpy, Tensorflow, Plotly), Swift, SQL, Java, C, C++, HTML/CSS (Bootstrap, JQuery), Matlab
Theory: Statistical models, machine learning, deep learning, numerical optimization, numerical methods
Software: Kubernetes, Docker, AWS S3, Ceph, Git, Bash