HINAL JAJAL

(I will be pursuing my Master's in Data Science starting Fall 2023)

EDUCATION:

University of California, Los Angeles (UCLA) 09/19 - 03/23 Expected
B.S. in Applied Mathematics & Specialization in Computing, GPA: 3.91/4.0

WORK EXPERIENCE:

Data Science Intern | Pegasystems *Cambridge, MA* 09/22 - Present
- Wrangled large, time-series employee workflow data into labels and features for burnout using **PySpark**.
- Identified behaviors that promote burnout using **classification** models, highlighting employees who need help.
- Grouped employees with similar behaviors using **k-means clustering** and provided recommendations.

Data Analytics Intern | Schonfeld Strategic Advisors *New York, NY* 06/22 - 08/22
- Optimized travel budgeting by building a **concurrent web scraper** to extract flight prices for 50+ routes.
- Deployed the web-scraping script in **Control-M**, saving 10+ hours of manual work every month.
- Provided real-time, drill-down view of financial trends for leadership team by building a **Power BI** dashboard.

Data Analytics Intern | International Game Technology *Las Vegas, NV* 01/22 - 06/22
- Spearheaded the acquisition of client metadata in **SQL**, creating benchmark for IGT market penetration.
- Uncovered underserved market segments worth $62MM and strategized product placement through outlier analysis of gaps between client product capacity and IGT's sales data in **Python**.

Operations Analyst Intern | AcuityMD *Boston, MA* 09/21 - 12/21
- Improved company medical education platform by aggregating data on 4000+ U.S. fellows and residents.
- Presented analysis of U.S. fellows' distribution by characteristics and was awarded **Intern of the Month**.

Actuarial Analyst Intern | Swiss Re *New York, NY* 06/21 - 08/21
- Automated standardization of 100+ client data pipelines and analyzed the rate changes over time in **R**.
- Analyzed differences between insurance carriers' negotiation settlement and aggregate limit by **fuzzy text matching** company names.

RESEARCH:

Health Inequalities and the Ghost in Your Gene, *Prof. Dora Costa* 03/22 - 06/22
- Cleaned and extracted features from 20 million rows of census data to compare with sample birth locations.
- Computed one-sided statistical tests for proportions and made spatial data visualizations in **R**.

Racial Disparities in Virginia Criminal Sentencing, *Prof. Phil Chodrow* 09/21 - 06/22
- Discovered patterns of racial bias in state-level sentencing using statistical modeling.
- Gave talks at QSIDE Datathon4Justice (11/21) and UCLA Women in Math Research Night (03/22).

OTHER ACTIVITIES:

Learning Assistant (09/20 - 12/20) $\longrightarrow$ **Head Learning Assistant** (03/21 - 06/21) | **UCLA**
- Helped students with challenging class problems in topics including **machine learning** and **linear algebra**.
- Guided team of seven LAs on effective pedagogy and conducted weekly meetings with instructors.

Data Journalist (09/21 - 06/22) $\longrightarrow$ **Data Staff** (06/22 - Present) | **Daily Bruin**
- Wrote data-driven articles on professor reviews, student loans forgiveness, and UC campus sizes.
- Trained incoming writers in technical skills such as **Python**, **D3.js**, and **Chart.js**.

SELECTED PROJECTS:

Sentiment + Network Analysis of Amazon Product Reviewers *Math 168 Final Project* (Present)
- Extracted sentiment from review text and built bipartite reviewer-product network **(TextBlob)**.
- Predict reviewer sentiment using random walk and signed caterpillar based models. **(NetworkX)**.

Gendered Language in Students' Reviews of Professors *Written for the Daily Bruin* (02/22)
- Detected gender-biased language using sentiment analysis of professor reviews **(NLTK, D3.js)**.

Virginia Criminal Cases & Judges Database *PIC 16B Final Project* (06/21)
- Used **API calls** and **Scrapy** to scrape dynamically loaded case search portal and compile database in **SQLite**.

TECHNICAL SKILLS:

Python (ScikitLearn, Statsmodels, NLTK, Scrapy, Selenium, BeautifulSoup, TensorFlow, Keras, NetworkX, matplotlib, Plotly), **R** (ggplot2, lmer, stats), **C++**, **JavaScript**, **SQL**, **PHP**