

Chrissy Lum

chrlum03@gmail.com • Las Vegas, NV • github.com/ch-lum • linkedin.com/in/ch-lum • ch-lum.github.io

EDUCATION

University of California, San Diego

Bachelor of Science in Data Science, Minor in Business

- **Cumulative GPA:** 3.85/4.00

La Jolla, CA

Grad: March 2025

PROFESSIONAL EXPERIENCE

Caesars Entertainment

Data Analyst II – Hospitality Analytics

Las Vegas, NV

Jul 2025 – Present

- Contributed to the development of an enterprise-wide hotel revenue optimization model, forecasting demand and optimizing pricing across room and gaming revenue streams to maximize total guest value.
- Built an XGBoost model to estimate incremental revenue from charter flight programs and designed a Tableau dashboard to identify flights for potential cancellation; work drove cross-team adoption and led to a BigQuery ML training for the broader analytics group.
- Developed a causal inference model using XGBoost to optimize direct mail targeting, projecting a 14% reduction in mailing costs relative to promotional revenue.

DSTL Lab @ UC San Diego

Research Assistant – Data Science Education

La Jolla, CA

Apr 2024 – Mar 2025

- Developed a scalable way to manage the memory which increased the limit by two orders of magnitude (initially 1MB), significantly enhancing the capability to handle larger datasets for the tool [Pandas Tutor](#)
- Published a paper on code comprehension centered around qualitative analysis through interviews and presented to an audience of 50+ at the conference SIGCSE (see “Peer Reviewed Publication”)
- Lead project group in developing [ClassBuzz](#), an in-lecture web application (Next.js) for student engagement used by over 1000 students in UCSD classes'

San Diego County Taxpayers Association

Data Science Intern

San Diego, CA

May 2023 – Sep 2023

- Developed a ProPublica scraper for 990 forms with BeautifulSoup which scraped documents with 99% accuracy with error flagging for inaccuracies, doubling the dataset with fewer errors than when done by hand
- Digitized SD County's city budgets from PDF to XML preparing groundwork for financial and meta-analysis

PROJECTS

Privacy In Practice

Live website: <https://ch-lum.github.io/privacy-in-practice/>

- Implemented differential privacy (DP) techniques on large-scale Intel telemetry data across four research scenarios, evaluating utility-privacy tradeoffs at various privacy levels to assess real-world feasibility
- Designed and developed an interactive educational web application using Next.js, React, and D3.js to visually demonstrate DP concepts and communicate our findings for non-privacy people

Facebook Comment Sentiment Analysis

Live website: <https://ch-lum.github.io/comment-vis/>

- Used the DistilBERT model on Hugging Face to classify sentiment on 1,300-comments from a Facebook post
- Implemented custom interactive visualization using D3.js and JavaScript
- Highlighted as **best project in class of 150 students** by instructor

Rocket League Possession Model

Exemplar code: <https://bit.ly/ch-rl-parser>

- Scraped over 10 GB of match replays, consisting of 30 frames-per-second physics data that recreates five-minute matches in the game's client and parsed the resulting JSONs into a cleaned CSV dataset for analysis
- Trained a predictor to classify possession to serve as the first frame-by-frame possession analysis model in the Rocket League professional scene as a personal project