## XIAOMENG "LAURA" YU

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### **EDUCATION**

### University of Southern California, Marshall School of Business - Los Angeles, CA

May 2023

Master of Science in Business Analytics (STEM)

• GPA: 3.80

## University of Illinois at Urbana-Champaign – Champaign, IL

December 2019

Bachelor of Science in Actuarial Science, Minor in Business

• GPA: 4.00, Summa Cum Laude, passed SOA (P/1) and SOA (FM/2)

#### INTERNSHIP EXPERIENCE

### **Upland Capital Group** – Dallas, TX

January 2023 - Present

Actuarial Analyst Intern

- Code in Python to replicate all the data processing logic in the Excel version of the Construction Rate
- Participate in Actuarial/Data team effort to validate the new Electronic Data Processing system in Microsoft Azure

## **LA Clippers LLC** – Los Angeles, CA

October 2022 – January 2023

Business Insights Intern

- Implemented complex SQL queries to load and transform 100k+ rows of data from multiple sources
- Created dashboards for demographic trends and ticket sales in Power BI. Analyzed differences in family size of attendees across different games. Marketing team successfully targeted larger families for lower tier games
- Conducted hypothesis tests to verify whether ClipperVision view duration would significantly increase due to consecutive wins or star players. Helped marketing team target potential ClipperVision buyers at the right time

# **Fashom.com ("Affordable Styled Clothing Delivered to Your Doorstep")** – Miami, FL *Data Analyst Intern*May 2022 – October 2022

- Improved the recommender system for internal use by incorporating NLP
  - Classified customer reviews into positive and negative topics, reached 92% accuracy, with BERT and PyTorch
  - Architected a ML pipeline, utilizing 2 NLP models, scoring 10k+ items based on how the item had been reviewed by customers
  - Decreased 15% return rate by removing items with low scores in the final stage of recommender system
- Upgraded recommender system by changing the loss function from MSE to ranking loss, reached 6% recall for top 10 items
- Rectified customer shirt sizes based on purchase history through Matrix Factorization. Classified customers into body types using K-means clustering, which were used by stylists to provide better dressing advice

### **Keck Medicine of USC** – Los Angeles, CA

Business Analyst Intern Github.com/laurayu0916/Patient-Intake-Workflow

January 2022 - May 2022

- Standardized patient intake workflow by building a SQL database for 250 patient cases
- Visualized average waiting days for each patient intake step in Dashboard. Proposed recommendations reducing waiting time by 20% and improving inquiry-to-patient rate
- Achieved 100% increase in work efficiency for schedulers by crawling U.S. visa waiting days from travel.state.gov using Selenium

### **PROJECTS**

## Tensor And Matrix Operations (with) PyTorch Github.com/laurayu0916/TeAMOTorch

- Collaborated with Andrew to build a PyTorch-based, Python library, providing a highly customizable framework meant to facilitate matrix factorization workflows primarily used in recommender systems
- Implemented 3 types of ranking losses, achieved up to 6% recall@10, 15% recall@30, 21% recall@50, on a 20% test dataset of the MovieLens 100k dataset

### LA Crime Data Analysis and Modeling Github.com/laurayu0916/LA-Crime-Analysis

- Researched 636k rows of data, indicating how the number of crimes would change in this city via Spark SQL
- Visualized crime events w.r.t. category and resolution. Gave insights on how to distribute the police

## **SKILLS & INTERESTS**

- Programming Tools: Python (NumPy, Pandas, Scikit-Learn, TensorFlow), SQL, Scala, PySpark, MongoDB
- Statistical Analysis: Probability Distributions, Hypothesis Testing (A/B Testing), Time Series Analysis
- Certificates: AWS Certified Cloud Practitioner, Tableau Desktop Specialist