# Szu-Min Yu

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Conceptual researcher with the passion for solving analytical problems Communicator with experiences in public speaking

#### **EXPERIENCE**

#### Dan Klores Communications (DKC)

New York, United States

*Data Scientist – Analytics* 

Feb 2019 – Present

- Maintained data infrastructure for the interaction with social media APIs, including Facebook, Instagram, Twitter, and Reddit.
- Applied machine learning algorithm to grow customers' business, including membership and donor base, audience size, and product revenue.
- Demonstrated business insights extracted from audience demographics, behavioral, and sentiment data to multiple stakeholders to improve marketing and advertising performances.
- Established reusable statistical methodology for audience segmentation and competitor analysis for b2b and b2c companies, such as Oracle NetSuite, Bolon Eyewear, and Health-Ade Kombucha.
- Developed measurement and applied parametric analysis to survey data for clients, including OpenTable and Airbnb.
- Visualized the geo-location of product sales and built BI dashboards for tracking campaign performances, such as conversion or engagement, for future digital marketing strategy optimization.
- Communicated with non-technical clients for developing business strategic plans.
- Mentored junior staff by leading data science workshops and providing career development advice.

# **New York Police Department**

New York, United States June 2018 – Dec 2018

Data Analyst Intern

- Created baseline model for statistical analysis of equity, inclusion, and fairness variables for the Office of the Deputy Commissioner of Equity and Inclusion.
- Provided statistical consultation for analyzing, modeling, and predicting distribution and nature of complaints and crimes in NYC's five boroughs.
- Processed crime stats data, including shootings, arrests, summonses, and complaints databases to examine policing practices. Presented data processes with internal stakeholders.
- Visualized demographics of perpetrators and victims to assist with evidence-based neighborhood policing policies.

### **EDUCATION**

**New York University** 

New York, United States

Master of Arts, Applied Quantitative Research (GPA: 3.74)

Ian 2019

Thesis topic: The Impact of the Motherhood Penalty on Single Mothers' Earnings in Taiwan.

Relevant Coursework: Machine Learning, Applied Quantitative Analysis, Data Analysis and Visualization, Design of Social Research, Social Stratification.

# National Taiwan University - Ranked 1st in Taiwan

Taipei, Taiwan June 2017

Bachelor of Laws (GPA: 3.82/4.30)

Bachelor of Arts, Major in Political Science, Minor in Gender and Women's Studies (GPA: 3.88/4.30) Relevant Coursework: Applied Statistics, Economics, Research Methodology of Social Science

# **DATA SCIENCE PROJECTS**

- Developed a movie recommendation system using content-based and collaborative filtering algorithms from 45,000 movies and 20,000 user ratings (Rake-NLTK, Sklearn, Sklearn-Surprise)
- Predicted 4554 amino acid sequences using K-Nearest-Neighbors and LSTM (Sklearn, Keras)
- Built an application interactive map for selecting restaurants in Las Vegas (Shiny)

# **AWARDS & LEADERSHIP**

- Co-organizer and speaker of the Taiwanese Data Professionals Meetup in New York.
- Volunteer data scientist at Out in Tech New York.
- Winner, Diversity Scholarship, PyData New York 2018.
- Member of NYU LGBTQ Center and Graduate School of Arts and Science Program Board

#### **SKILLS**

- Data Science and Statistics: R, Python, Relational Databases (SQL), SPSS, Stata, Git.
- Data Modeling: stats, caret, glmnet, boot, tree, randomforest; Scikit-Learn, Keras, PyTorch
- Data Transformation and Visualization: dplyr, tidyverse, ggplot2, plotly, ggmap, ggnet; RShiny; Pandas, NumPy, Matplotlib, Seaborn; Tableau.
- Languages: English, Mandarin Chinese.