Ying Jin

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Skills

Machine Learning: Supervised Learning, Unsupervised Learning, Natural Language Processing, Neural Network
Software: Python (scikit-learn, statsmodels, matplotlib, beautifulsoup4, pandas, numpy), SQL, Git, Shell, HTML, R, Spark, COMSOL

Education

New York University, M.S. in Data Science, ***GPA***: 4.0/4.0 — Expected **May 2020**
University of California, Irvine, B.S. in Physics, Minor in Accounting, ***GPA***: 3.83/4.0 — **June 2017**
Honors**:** *cum laude*, Deans Honor List (8 Quarters), Honors in Physics, Sigma Pi Sigma

Work Experiences

Data Program Manager — **Aug 2017 – Jun 2018**
University of California, Irvine, CA

- Lead design and implementation of the program's database query search system with 12 different search queries for admin use
- Responded to 15+ campus units' mass student data requests of more than 5 times per semester
- Processed, cleaned, and verified the integrity of more than 10k entries of student enrollment and exam data used for analysis
- Delivered 20+ reports on analysis per quarter to determine program concerns, factors, and patterns
- Presented the program's database query system and analytics tools at the 2018 NAFSA Annual Conference in Philadelphia
- Managed one part-time administrative staff and two student office assistants

Valuation & Business Modeling Intern — **Dec 2016 – Jan 2017**
Ernst & Young (China) Advisory Services Ltd, Beijing, China

- Performed independent market research, projected revenue analysis and valuation for real estate properties as collateral
- Analyzed and visualized discounted cash flow valuation results for business presentation to clients
- Wrote business memos and bidding proposals on public-private partnership projects in Mandarin & English

Undergraduate Researcher & Peer Tutor — **Mar 2016 – Jun 2017**
Department of Physics and Astronomy, UC Irvine

- Virtualized complex physics models for Helium-neon and Diode Lasers; measured and analyzed physical beam properties
- Presented research paper and findings with a presentation and Q&A at the UCI Undergraduate Research Symposium
- Designed practice problems and lead weekly review seminars with other tutors for a 500 student physics course

Relevant Projects

[Time Series Analysis] ***NYC Water Consumption and Cost*** — **Oct 2018 – Dec 2018**

- Applied data science knowledge to better predict NYU water consumption, thus provide recommendation for water allocation
- Identified key trends, cycles, and seasonality with respect to time shifts and across boroughs of New York City's water consumption and cost. Fitted seasonal ARIMA models to the data to predict future water consumption and cost
- Explored cross-correlations between target variable and potential underlying factors, such as water cost and precipitation

[Machine Learning] ***Forecasting U.S. Honey Production*** — **Oct 2018 – Dec 2018**

- Predicted honey production level with 51% accuracy using supervised machine learning to inform apiaries' business decision
- Built a dataset with honey production, bees and pesticides (from USDA), and varies weather features (from NOAA API)
- Grid searched between different model hyperparameters and compared model accuracies between Gaussian Naïve Bayes, Multinomial Logistic Regression, SVM and Random Forest. Explained the results with business purposes

[Text Analysis & Machine Learning] ***Insights from Amazon's Product Review*** — **Jan 2017 – Mar 2017**

- Employed web scrapping algorithms (bs4) to obtain data on each customer's reviews for cell phone & accessories products
- Identified key metrics drivers and associations with data visualization graphs (world clouds) and statistical tools (correlation)
- TF-IDF vectorizer, along with several machine learning models (Multinomial Naïve Bayes, Bernoulli Naïve Bayes, and Logistic Regression) were employed to predict the sentiment of reviews from text. LR resulted in a test accuracy of 93.41%

[Software Development] ***Full Othello Game with Graphic User Interface*** — **Apr 2017 – Jun 2017**

- Built an Othello object (in Python) that implements the full game logic of Othello and communicates with the user interface
- Designed a graphical user interface (tkinter) with features that allow the user to modify the game's initial state and winning condition, prompt users with the next step, and help with debugging by tracing the program execution

[Financial Analytics] ***Pro Forma on a Commercial Property (2670 North Main Street, Santa Ana)*** — **Jan 2016 – Mar 2016**

- Conducted research on the property's condition, market environment, and risk factors
- Created a business plan on the acquisition and redevelopment of the property
- Calculated the return characteristics and presented it with a 7-year pro forma statement

Additional Information

Campus Involvement**:** External Vice President - Real Estate Association at UCI & Active Member - Women in Leadership at UCI
Language: English, Mandarin Chinese