

# Wenjing (Karen) Yang

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## EDUCATION

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**Northwestern University**, Evanston, IL

Expected December 2018

*M.S. in Analytics (MSiA), 3.75/4.00*

Relevant Coursework: Predictive Analytics (classification, regression, time series), Data Mining (clustering, factor analysis, recommender system), Introduction to Databases, Java & Python Programming, Analytics Value Chain (A/B testing)

Future Coursework: Deep Learning, Data Visualization, Analytics for Big Data (Hadoop, MapReduce, Spark), Text Analytics

**Emory University**, Atlanta, GA

May 2017

*B.S. in Applied Mathematics, double major in Economics (graduated with high honors), 3.89/4.00*

Honors: Dean's list (6 semesters), Phi Beta Kappa Honor Society

## TECHNICAL SKILLS

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**Programming:** Python (NLTK, Pandas, NumPy, Scikit-learn, etc), Java, R, SQL, MATLAB, PHP, HTML, JavaScript

**Tools:** Tableau, Postgres, STATA, GitHub, AWS, GCP, Microsoft Office

## DATA PROJECTS

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**Movie Recommender System Project, Northwestern University**, Evanston, IL

January 2018 - Present

- Transcribe movie, user and rating JSON files into CSV data tables through Python
- Implement collaborative filtering to find similar users matching with the user-input ratings of 10+ movies selected from different genres to offer movie suggestions for the specific user

**Labor Data Analytics Project, Northwestern University**, Evanston, IL

September 2017 - November 2017

- Cleaned 6M+ tuples of labor data in R by connecting to MySQL server to access and join 3 data tables
- Conducted cross-sectional analysis on IT salary and time-series visualization of job supply across the U.S in Tableau
- Engineered linear and logistics models for salary using 44 predictors including sets of technical skills and socioeconomic variables to study salary dynamics and to predict salary patterns in IT industry

**Database Application and Web Development Project, Emory University**, Atlanta, GA

April 2017 - May 2017

- Created an online database containing the information for 40 courses and 10 majors offered by Math & CS department
- Designed a user-input webpage and enabled the webpage to alert users with invalid inputs with coding in JavaScript
- Wrote SQL queries in PHP for backend to ensure the webpage to provide optimal course schedules for students to finish their major/minor requirements before expected graduation time

**Undergraduate Honors Research, Emory University**, Atlanta, GA

October 2016 - April 2017

*Research Topic: Delayed Marriage in China, An Analysis of Education's Impact on Marriage*

- Examined the interactions between education and marriage from an individual-level dataset containing 1M+ rows of data
- Studied 12 OLS regression results which showed a positive impact of education on men's marriage status, yet a delaying effect of educational attainments on women's marriage age

## WORK EXPERIENCE

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**Synchrony Financial**, Chicago, IL

October 2017 - Present

*Graduate Student Analytics Consultant | Chatbot Development*

- Parse through customer email and call transcriptions in HTML to extract user interactions data for building the data lake
- Apply NLTK package in Python and decision tree algorithm for developing chatbot prototype to achieve functionalities of balance inquiry, credit line limit increase request, and payment making

**Emory University**, Atlanta, GA

May 2016 - December 2016

*Research Assistant | Economics Research in U.S. Bond Market*

- Collected the data of call money rates, including open, close, highest, lowest and ruling rates from 1900 to 1920
- Visualized the time trend of U.S. stock market, and analyzed the effects of historical social events on the market data

**Bank of Communications**, Chengdu, China

June 2016 - July 2016

*Data Analyst Intern | Finance Department*

- Analyzed Kelun Pharmaceutical's credit worthiness level by tracing its stock prices and net profits from 2013 to 2016