

# Feiyi (Fey) Wang

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## EDUCATION

**Worcester Polytechnic Institute**, Worcester, MA

01/2015 - 05/2017

*Master of Science in Data Science, GPA 3.91/4.00*

**Shanghai University of Finance & Economics**, Shanghai, China

09/2008 - 06/2012

*Bachelor of Arts in Economics Journalism, GPA 3.23/4.00*

## SKILLS

**Programing Languages:** Python, R, SQL, HTML, CSS, JavaScript (JS)

**Analysis Skills:** Machine Learning & Deep Learning Packages: Python - sklearn, tensorflow, pytorch;

Natural Language Processing (NLP) Packages: Python - gensim, nltk

**Visualization Skills:** Web Frameworks: Python - Django, Flask, Tornado; R - Shiny

Plotting Tools: Python - matplotlib, Plotly; R - ggplot; JS - D3, Bootstrap, jQuery;

Business Intelligence Platforms: Tableau, Qlik Sense

## PROJECTS

**Django Analytics Web Application Development**

12/2018 – 05/2019

*Ninjio IT Security Training*

- Designed surveys, statistics and models to classify end users and evaluated their performance
- Used Django web framework to build dashboard for both vendors and clients and deployed the project via Docker-based LAMP (Linux, Apache, MySQL, Python) stack

**Clinical Pathway Extraction and Dashboard Development**

08/2017 – 08/2018

*Dana Farber Cancer Institute*

- Extracted systematic treatment pathways (e.g. symptom, illness history, Gleason score, prostate-specific antigen, medication) from electronic health records (EHR) of prostate cancer patients using regular expressions and nltk package
- Visualized the pathways on timeline using Flask web framework
- Explored the correlations between patient notes and medications using gensim and SNOMED CT

**Clinical Analytics Platform Development**

01/2017 – 07/2017

*Dana Farber Cancer Institute*

- Established classification models to sectionize unstructured EHR with F1 score 0.96 and applied NLP to extract clinical events such as staging, code status, metastasis
- Wrapped the project code into an easy-to-use library and documented it using Sphinx
- Developed a Clinical Analytics Platform using Flask web framework

**Shiny Dashboard Development**

01/2016 – 06/2016

*Gordon Research Conferences*

- Built interactive descriptive statistics and prediction models to target future conference attendees
- Applied topic model to free-text data, extracted keywords of each corpus, and performed clustering model to find strong correlations between paired keywords
- Used Shiny web framework to build a dashboard for vendor to view the results and set filters

## EXPERIENCE

**Oncology Commercial Data Analyst,**

**Takeda Pharmaceuticals**, Cambridge, MA

01/2017 – Present

- Brand Insights Analytics and Data Visualization
  - Utilize specialty pharmacy (SP) and claims data to generate hypothesis, test assumptions, explore market insights and analyze patient journey including medication adherence, dose pattern classification, line of therapy, line prediction
  - Utilize SP, sales and lab data to generate field alerts by prediction rules and modeling
  - Design and build analytical dashboards using data visualization techniques
- Process Analysis and Enhancement
  - Identify existing problems in current data flow, and implement cross-functional interventions including data process automation, user experience improvement, and end user training
- Extracted cardio-toxicity attributes of kinases from online databases and built a searchable knowledge library for potential early detection of kinase inhibitors for clinical trials

**Market Analyst**

**Narita Group**, Shanghai, China

07/2013-10/2014

- Collected qualitative and quantitative data for market research
- Analyzed needs of clients and tendency of market and contributed to a 15% increase in sales volume