

167 Cherry St., Cambridge, MA 02139 (508) 873-7966 rephycca@gmail.com

EDUCATION

Worcester Polytechnic Institute, Worcester, MA Master of Science in Data Science, GPA 3.91/4.00

01/2015 - 05/2017

Shanghai University of Finance & Economics, Shanghai, China Bachelor of Arts in Economics Journalism, GPA 3.23/4.00

09/2008 - 06/2012

SKILLS

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

Analysis Skills: Machine Learning & Deep Learning Packages: Python – sklearn, tensorflow, pyspark:

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, prostatespecific 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