

# Cara (Yuhui) Dai

## PROJECTS

**New York Times**, Cornell Tech Product Studio Sept 2017—now

- Developing a mobile app to help NYT to attract new subscribers by gamifying news reading experience
- Implementing a mobile application to catalog, recommend content, enable social interaction and create personalized experience for NYT subscribers using in-house recommendation algorithm, **Nodejs**, **MongoDB** and **React Native**

**Machine Learning Kaggle Competition** Sept 2017—now

- Used **Python** and **Pandas**, **Numpy**, **Sklearn** libraries to predict data classifications on different challenges
- Performed k-fold cross-validation, K nearest neighbor method, 2D matrix feature reduction and approximation
- Utilize Logistic Regression, Linear Discriminant Analysis and Gaussian and Bernoulli Naïve Bayes classifiers

**Simple full-stack receipt system** Sept—Oct 2017

- Built back-end RESTful API and database with **Java** and **Jooq**, and front-end application with **JavaScript** and **Css**
- Used Google Vision API to automatically extract text information and recommend content from user input photos

**Capstone Research in Business Analytics**, independent researcher June 2016—May 2017

Topic: Whether the sentiment value of Twitter users' real time tweets can forecast consumer-facing and non-consumer-facing companies' stock performances.

- Designed, tested and ran **Python**, **Shell** scripts to acquire real time data via Twitter API and Microsoft API
- Automated and remotely monitored the 24/7 data acquisition programs on a research computer for 90 days
- Conducted statistical analysis on empirical variables with **Stata**, **R** and validated Efficient Market Hypothesis

**U.S. Corporate Tax Rate**, [full description](#) Oct 2015

- Visualized U.S. industry tax rate of both industry average and successful firms with **d3** and **JQuery**

## WORK EXPERIENCE

**NYU Abu Dhabi Design Lab**, UI/HCI Research Assistant | Abu Dhabi, UAE May 2017—July 2017

- Built 12 interfaces to validate uncertainty visual techniques of random-generated data in **d3** and **Angularjs**
- Utilized non-parametric estimation (e.g.: kernel density estimation) to approximate user-specified, parametric probability density distribution, and created interactive UI to visualize the differences (aka: uncertainty)

**Idealist**, Product Engineer | New York, USA Jan 2016—August 2016

- Designed a 13-user-interface, 5-functionality web-extension prototype, which shows relevant volunteering opportunities based on topics of the articles users are currently browsing, using **Css**, **JavaScript**, **jQuery** and **Ajax** for API processing
- Developed a 3-phase product rollout plan and hosted a presentation on product prototype for 11 partner NGOs

## EDUCATION

**Cornell Tech at Cornell University, NYC, USA** May 2019

MS in *Information System in Connective Media & Applied Information Science*

Courses: Applied Machine Learning, Advanced Startup System Design and Engineering GPA: 4.00/4.00

**New York University-Abu Dhabi, Abu Dhabi, UAE** May 2017

*Magna Cum Laude* in *Economics* with *Finance* specialization

Minors in *Computer Science* and *Applied Mathematics*

Courses: Algorithm, Data Structure, Software Engineering, Web Development with APIs GPA: 3.96/4.00

## SKILLS

- **Programming skills:** Java, Python, JavaScript, Html, Css, Sass, SQL and Stata
- **Framework & Tools:** RESTful, Angularjs, d3, React Native, Git, Docker, AWS EC2/S3, Scikit-learn, Jooq, Unix

## Personal

- **Leadership:** President at Consulting Club, External Outreach Director at Entrepreneurial Society, Active participant at Women in STEM (NYUAD) and Women in Technology and Entrepreneurship (Cornell Tech)
- **Volunteer:** Main Street Theater and Dance Alliance front-end consultant, Let's Code Roosevelt Island
- **Interests:** Detective Story, DIY décor, Marvel, Fashion, Roller Blading, Travel