

# Yunjun Xia

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## EDUCATION

**Columbia University**, Columbia Engineering, New York, NY

**Expected Dec. 2020**

**Master of Science in Data Science** (Current GPA: 4.0/4.0)

Coursework: Probability & Statistics for Data Science; Exploratory Data Analysis & Visualization; Algorithms for Data Science; Elements of Data Science

Current Coursework: Machine Learning; Applied Machine Learning; Statistical Inference & Modeling; Databases

**University of California San Diego**, Revelle College, La Jolla, CA

**Mar. 2019**

**Bachelor of Science in Probabilities & Statistics** with Minor in Economics (GPA: 3.831/4.0)

Coursework: Mathematical Statistics; Computational Statistics; Stochastic Processes; Probability; Combinatorics; Time Series; Bootstrap Analysis; Linear Algebra; Real Analysis; Actuarial Mathematics; Mathematics of Finance; Differential Equations; Microeconomics; Macroeconomics; Econometrics; Decisions Under Uncertainty

Honors: Provost Honor in Freshman year, Fall 2016, Winter 2017, Winter 2018, Spring 2018

## PROFESSIONAL EXPERIENCE

**China Everbright Bank**, Chengdu, China

**Aug. 2017 – Sep. 2017**

*Internship, Electronic Banking Department, Chengdu Branch*

- Collected and published daily articles about the branch's main products in season on CEB Chengdu WeChat Official Account;
- Improved the contents of articles by analyzing the popular previous ones, which increased the page reading from 200 to 800 on average;
- Signed QR Code payment agreements with 30+ business owners;
- Classified and analyzed the information of business owners which signed the payment agreement with the branch.

## PROJECT EXPERIENCE

**Python project: Machine Learning - Regression Model Evaluation**

**Spring 2020**

*Individual Project, Columbia University*

- Visualized the dependency of the target on each continuous feature for Sydney housing dataset;
- Preprocessed both categorical and continuous variables by using a pipeline;
- Evaluated OLS, Ridge, Lasso and Elastic Net using cross-validation and tuned parameters using grid search;
- Analyzed the 20 most important coefficients of the resulting models.

**Data Visualization R project: 2019 Airbnb Analysis - New York City**

**Fall 2019**

*Group Project, Columbia University*

- Visualized distributions of Airbnb room types in NYC by boroughs using stacked bar chart and Google Map Platform;
- Analyzed Airbnb prices by NYC Community Districts and transportation convenience using choropleth map, histogram, and violin plot;
- Extracted emotional words expressed in customer comments over years to compare with customer review scores;
- Used R packages Leaflet and Shiny to create interactive heat maps of price and rating score.

**Python application: Depth-First Search**

**Fall 2019**

*Individual Project, Columbia University*

- Implemented depth-first search for identifying the connected components of an undirected graph;
- Transformed the interactions of characters in Homer's *Illiad* into an undirected graph;
- Applied the depth-first search to the transformed data and found the connected components to analyze characters' interactions.

**R project: Bootstrap methods on data analysis**

**Spring 2018**

*Individual Project, UCSD*

- Tested the mean of data samples with known variance through Bootstrap method;
- Computed the bootstrap pivotal confidence interval for the mean of data samples;
- Constructed the bootstrap studentized pivotal confidence interval for the mean of data samples.

**Java application: Game 2048**

**Winter 2018**

*Individual Project, UCSD*

- Built up a mathematical game 2048 based on Java;
- Coded and implemented 2048 backend using Vim editor;
- Constructed 2048 GUI for the fully functioning graphical 2048 game.

## SKILLS & HOBBIES

- Program language: R, Python, SQL, Java, Matlab, Microsoft Office, Stata.
- Hobbies: League of Legends; Baking; Cooking.