

# Rex Ruizhe Zhou

website: [trexwithoutt.github.io](http://trexwithoutt.github.io)

[rzhou12@uchicago.edu](mailto:rzhou12@uchicago.edu) | 812.369.1106 | 1330 E. 53rd St, Chicago, IL, 60615

## EDUCATION

### UNIVERSITY OF CHICAGO

MS IN COMPUTER SCIENCE

Expected Dec 2018 | Chicago, IL

### UNIVERSITY OF ILLINOIS

AT URBANA-CHAMAPGIN

BS IN MATHEMATICS

BS IN STATISTICS(HIGHEST  
DISTINCTION)

Jan 2015 - May 2017 | Urbana, IL

## LINKS

Github:// [trexwithoutt](https://github.com/trexwithoutt)

LinkedIn:// [rex-zhou](https://www.linkedin.com/in/rex-zhou)

## SKILLS

### TECHNICAL

Over 10000 lines:

R • Python • Markdown •  $\LaTeX$

Over 2000 lines:

SQL • Java

Over 500 lines:

Ruby • HTML • NoSQL

Hadoop • Spark • PHP • Tableau

Operating System

Mac OS • Linux • Unix

### PERSONAL

Team Player • Responsiveness

Time Management • Curiosity

Comprehensive Planning

### CERTIFICATION

Algorithms

by Stanford University on Coursera.

Certificate earned on January 4, 2017

Machine Learning

by Stanford University on Coursera.

Certificate earned on December 27, 2016

## COURSEWORK

### UNDERGRADUATE

Statistical Learning

Statistical Computing

Regression Analysis

Optimization

Introduction to Data Science

Abstract Algebra

Numerical Method

Complex Analysis

Abstract Linear Algebra

### GRADUATE

Discrete Math

Algorithm

Database

Python Programming

## EXPERIENCE

### HAIER GROUP CORPORATION | DATA ANALYST INTERN

June 2017 - Aug 2017 | Qingdao, CHINA

- Developed anomalies detection system by upgrading with algorithms, such as Time Series, LoF, using R, that keeps detection system consistently working for the next 10 years
- Boosted efficiency of extracting company's data and systematizations of data administration by clustering company's business indices based on rational attributes
- Co-conducted Haier Cloud platform, which prompts intracompany data and information sharing enhancing company's operating efficiency meanwhile offers a business analysis to clients bringing up to a potential service development direction

### ZHEJIANG UNIVERSITY | RESEARCH ASSISTANT INTERN

June 2014 - Aug 2014 | Hangzhou, CHINA

- Interviewed with 10+ companies and identified potential issues that would influence enterprise development
- Interpreted analysis with statistical model and conducted solutions to initiate new industrial programming
- Generalized an estimate expected development prospect with potentially influential features, which would impact a billion RMB industrial revenue:
  - Elevator: energy conservation and seamless connection
  - Engineering Machinery: sectors of fields development and information based manufacturing
  - Bearing: transformation from micro bearings to precision bearings

### U OF I AT URBANA-CHAMPAIGN | TEACHING ASSISTANT

Sept 2016 - May 2017 | Urbana, IL

- Held office hour for 200+ students helped them with R programming language and Python programming language
- Graded tests and homework for engineering calculus, biostatistics and numerical method

## RESEARCH & PROJECT

### ILLINOIS GEOMETRY LAB | UNDERGRADUATE RESEARCHER

Sept 2016 - Nov 2017 | Urbana, IL

- Co-worker of Algebraic and Combinatorial Computational Biology, research member of Connecting algebraic geometry to phylogenies via singular value decomposition Group (supervised by Dr. Ruth Davidson)
- Simulated genomic data and species tree with 10000 files (software: Simphy), and tested the robustness of the SVDquartets method by examining its behavior under a variety of model conditions (software: INDELIBLE and SVDquartets.py)
- Upgraded algebraic geometry tools by changing SVDscore norm generator, which shorten the cluster processing time from 4 hours to 30 minutes

### NFL SCORE PREDICTION VS. STATISTICAL ANALYSIS | INDIVIDUAL SCHOLAR

Nov 2016 | Urbana, IL

- Gathered meta data from Armchair Analysis, cleaned datasets from missing values and extreme values, and organized predictors from 26 datasets containing 4000+ observations and 20+ parameters
- Built up regression, factorial, and variable selection for exploring details, and generate score and won-lost predictions model with techniques in categorical models, model transformation, and regression analysis and etc.

## ACTIVITIES

### ASSOCIATION OF DATA SCIENCE AND ANALYSIS | COMMITTEE

Jan 2016 - May 2017 | Urbana, IL

- Collaborated with Research Park and composed case analysis in Twitter API, Machine learning with AlphaGo and Cisco using Hadoop etc. by making presentation to the university
- Held Data Fair with cooperating companies providing career opportunities to students who interests in data analysis