Rex Ruizhe Zhou

website: trexwithoutt.github.io
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**
LinkedIn:// **rex-zhou**

SKILLS

Machine Learning
KNN • Naive Bayes • LDA • QDA
RandomForest • Boosting • Bagging
PCA • K-Means • GLM • SVM etc.
Deep Learning
ANN • CNN • RNN • SOM
• Boltzmann Machine
Frame Work
Sklearn • TensorFlow • Keras

TECHNICAL
Over 5000 lines:
R • Python • Markdown • LaTeX
Over 1000 lines:
SQL • Java
Over 500 lines:
Ruby • HTML • Hadoop
Spark • PHP • Tableau
Operating System
Mac OS• Linux

PERSONAL
Team Player • Responsiveness
Time Management • Curiosity
Comprehensive Planning

COURSEWORK

UNDERGRADUATE
Statistical Learning
Statistical Computing
Regression Analysis
Optimization
Introduction to Data Science
Numerical Method

GRADUATE
Deep Learning
Algorithm
Database
Computer System

VOCATIONAL EXPERIENCE

HAIER GROUP CORPORATION | Data Science 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 systematisms 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 EXPERIENCE

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

PROJECT

NBA WIN/LOSE PREDICTION VS. MACHINE LEARNING Dec 2017

- Organizing self dataset by gathering meta data from Basketball References and predicting win/lose result for non-played games with an accuracy above 90%
- Techniques: Python, Sklearn, Elo Rating

DEEPDREAM-LIKE IMAGE WITH TENSORFLOW Jan 2018

- producing high-resolution images with tiled computation and using Laplacian Pyramid to conduct colorful and smooth visuals
- Techniques: Python, TensorFlow, Laplacian pyramid

GOOGLE STOCKS TRENDS PREDICTION BY RNN Dec 2017

- Establishing a better predicting model than using arima algorithm, with results of having real-ish trend and relative error counting down in 0.01
- Techniques: Python, Keras, LSTM