Rex (Ruizhe) Zhou

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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

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

SKILLS

TECHNICAL
Over 10000 lines:
R • Python • Markdown • LaTeX
Over 2000 lines:
SQL • Java
Over 500 lines:
Ruby • HTML • NoSQL
Hadoop • Spark
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

EXPERIENCE

HAIER GROUP CORPORATION | Data Analyst Intern
June 2017 - Aug 2017 | Qingdao, CN

- 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, CN

- 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

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

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 etc.