Jitian Zhao

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Education

- **University of Wisconsin Madison** — Madison, WI
  Ph.D. in Statistics; — *Sep. 2020 – present*
- **University of Wisconsin Madison** — Madison, WI
  Master of Science in Data Science; GPA: 4.00 — *Aug. 2018 – May. 2020*
- **University of California, Los Angeles** — Los Angeles, CA
  Visiting Student (Summer session); GPA: 4.00 — *Aug. 2017 – Sep. 2017*
- **Zhejiang University** — Hangzhou, China
  Bachelor of Science in Statistics; GPA: 3.71 — *Aug. 2015 – Jun. 2019*

Projects and Research Experience

- **Build and select models for hemopoiesis prediction** — Dec. 2018
  STAT 601: course project — *Madison, WI*
  - **Modeling**: Use LASSO, PCA to reduce data dimension and fit linear model that is capable for high-dimensional data. Evaluate models using GMC (generalized measure of correlation), which evaluates non-linear relationship.
  - **Application**: Select the principal components or genes that contribute most to the response. Select best models using different standards. Interpret the findings.
- **Tweet sentiment analysis** — Mar. 2019 - May. 2019
  NLP project using deep learning methods — *Madison, WI*
  - **Train neural network models**: Build 3-class sentiment classifiers for Sentiment 140 dataset, which contains 1.6 million tweets.
  - **Model performance comparison**: Compare different deep learning methods with traditional machine learning model using criteria of training speed and prediction accuracy. Reach 90% accuracy in 3-class classification.
- **Generating amino acid sequence for protein synthesis** — Aug. 2019 - Sep. 2020
  collaborative research project(Prof. Raschka and Prof. Romero) — *Madison, WI*
  - **Modeling**: Implement character-level recurrent neural network and transformer model to learn patterns of amino acid sequences. Model long-range dependencies in the sequence data.
  - **Evaluation**: Use reconstruction accuracy and secondary structure to serve as semantic meaning in text generation.
- **Yelp Business Analysis** — Oct. 2019 - Dec. 2019
  STAT 628: course project — *Madison, WI*
  - **Data cleaning and visualization**: Clean 1 million bar business review data and merge corresponding business, user, tip information. Visualize word importance based on TF-IDF.
  - **Topic Modeling**: Implement LDA and NMF in python based on review and user weight. Use TC-W2V coherence to evaluate topic quality. Provide specific advice to 8000 bar business owners.
  - **Interactive shiny app**: Build shiny app to present procedure of analysis and provide real-time suggestions for improvements.

Specialized Skills

- **Related Courses**: Mathematical statistics, Real analysis, Regression analysis, Mathematical software, Multi-variate statistical analysis, Deep learning
- **Software**: Proficient in R and Python, experienced in SQL, Latex and C
- **Standardized Tests**:

  TOEFL iBT: 111 (R:29, L:30, W:26, S:26)
  GRE: 324 (V:154, Q:170, AW:3)

Honor and Awards

- **2015-2016**: Zhejiang University Academic Excellence Award
- **2017**: Winner of the 15th Statistical Modeling Contest at Zhejiang University
- **2018-2019**: Exchange & Visiting International Student Academic Excellence Award (twice)