

# CHENGHUI LI

✉ cli539@wisc.edu · ☎ (+1) 608-358-2030 · 🌐 github.com/chl781

## 🎓 EDUCATION

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**University of Wisconsin-Madison**, Wisconsin, U.S. Aug. 2018 – Present

*M.S. in Statistics; Expected to May 2020; GPA: 4.00/4.00*

**Zhejiang University**, Zhejiang, China Aug. 2015 – June 2019

*B.S. in Mathematics and Applied Mathematics; GPA: 3.77/4.00; Major GPA: 3.95/4.00*

## 👥 PROJECTS

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**Consistency of an Algorithm for Manifold Clustering** Jan. 2019 – Present

*Programming, Algorithm design and Theoretical proof* Professor: Nicolas Garcia Trillos

- Proposed a methodology for manifold clustering to recover a low-dimensional representation of the data coming from several overlapping geometric structures.
- Try to develop rigorous mathematical theory establishing its consistency by using ideas from geometry, probability and calculus of variations.
- Used Matlab to verify the efficiency of the model on simulated data.

**Yelp Business Analysis** Oct. 2019 – Nov. 2019

*STAT 628: Data science Practicum, Course project* Professor: Hyunseung Kang

- preprocessed one hundred thousand business review data and used counts of words to fit a linear regression to find the relationship between the reviews and the scores.
- Used keywords to separate the texts into three parts, and then used LSTM to predict the scores.
- Used **Shiny** to present real-time response including the statistical tests, prediction of scores and advice to the business.

**Modeling for Hematopoiesis Prediction** Dec. 2018

*STAT 601: Statistical Inference, Course project* Professor: Zhengjun Zhang

- Compared the efficiency of GMC(generalized measure of correlation), a complement tool for correlation, with other classical algorithms including PCA, PLS, LASSO on the prediction of data.
- Interpreted the results and the parameters of these methods to compare their difference.

## 👥 TEACHING EXPERIENCES

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**Grader of Math 629: Introduction To Measure And Integration** Jan. 2020 – May 2020

**International Teaching Volunteer in Indonesia** Feb. 2017

**Teaching Volunteer in Yunnan province, China(twice)** June 2016 & June 2017

## ♡ HONORS AND AWARDS

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- Visiting International Student Academic Excellence Award(twice) at Madison Mar. 2019 & July 2019
- Chu Kochen Honors Program at Zhejiang University June 2019
- First Class Scholarship for Elite Students in Basic Science at Zhejiang University Jan. 2017

## ⚙️ SKILLS

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- **Programming Languages:** Proficient in R, Python and Matlab, experienced in Latex, C and HTML.
- **Relevant courses:** Mathematical Statistics, Real Analysis, Topics in Probability, Multi-variate Statistical Analysis, Statistical Methods, Statistical Learning Theory, Optimal Transport Machine Learning, Stochastic Processes, Time Series, Regression Analysis, Combinatorial Optimization, Nonlinear Optimization