

# Changhao Ge

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## EDUCATION

### University of Science and Technology of China

Hefei, Anhui, China

*B.Sc. in Statistics*

*Sept. 2018 - Present*

School of Management, Department of Statistics and Finance

Overall GPA:3.89/4.3 or 89.39/100

Ranking:4/53(out of all the students in my class)

## CORE COURSES

Mathematical Analysis B1(92)	Mathematical Analysis B2(91)	Linear Algebra B1(85)
Linear Algebra B2(90)	Differential Equations I(90)	Probability(85)
Complex Analysis(90)	Mathematical Software(A)	Applied Statistical Software(95)
Computational Methods B(87)	Data Structures and Database(95)	Mathematical Analysis B3(85)

## STANDARDIZED TESTS

TOEFL iBT Test:26(Reading)+26(Listening)+20(Speaking)+24(Writing),Total 96

## RESEARCH INTERESTS

Statistical Learning, Bayesian Inference, Optimization, Music Information Retrieval

## PROJECTS

### Analysis of SVGD and pSVG and their implementation | *R, Rcpp*

December 2020

- Analyzed two Bayesian inference algorithms and the principle behind them
- Coding of three algorithms according to two articles with R, improved computational efficiency by Rcpp
- Simulated with Gaussian Mixture Model and Multivariate Normal Model using our code
- Compared our result with other methods, such as EM algorithm
- Made an R Package and published on Github

### Bayesian Inference Algorithms and Applications in COVID-19 | *R, Rcpp, Python*

November 2020 - Present

- Finished the implementation of algorithms SVGD and pSVG
- Processing an practical experiment with heterogeneous COVID-19 data
- Hoping to make an application in stochastic differential equations with statistical backgrounds

## HONORS AND AWARDS

2020: Outstanding Student Scholarship, Silver Award(top 10%)

2019: Outstanding Student Scholarship, Silver Award(top 10%)

2018: First Price of Chenguang Scholarship(10th out of about 1400)

2017: Second Price of Chinese High School Mathematics League(143th out of about 4000)

## KEY SKILLS

**Languages:** C/C++,R,Python,Mathematica,L<sup>A</sup>T<sub>E</sub>X

**Communication Skill:** Good at expressing my opinions and listening to others' ideas

**English Capability:** Capable in reading, writing and making presentations in English

## EXTRACURRICULAR ACTIVITIES

Enjoy listening to music, singing and playing the piano, good at sports such as badminton and jogging

Member of guitar club and Japanese club