

# Yuheng Ma

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## EDUCATION

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RENMIN UNIVERSITY OF CHINA

Setp 2021 -

*Beijing, China*

**Ph.D. Student in Statistics** at School of Statistics

Supervisor: Professor Hanfang Yang

NANJING UNIVERSITY

Setp 2017 - June 2021

*Nanjing, China*

**B.Sc. in Mathematics with Honor** at Kuangyaming Honors School

DUKE UNIVERSITY

Aug 2019 - Dec 2019

*Durham NC, U.S.*

**Visiting International Student**

## RESEARCH INTEREST

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Statistical Learning Theory; General Topics in Machine Learning; Differential Privacy.

## PUBLICATIONS

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Ma, Yuheng et al. (2023). “Extrapolated Random Tree for Regression”. In: *International Conference on Machine Learning* 99.18, pp. 2200–2300. URL: <https://some-link.com>.

## WORKING PAPERS

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Y. Cai, **Y. Ma**, H. Yang. **Adaptive Weighted Nearest Neighbor Density Estimation.**

**Y. Ma**, H. Yang. **Differential Privacy via Randomized Sketching.**

**Y. Ma**, H. Zhang, H. Yang. **Decision Tree for Private Estimation with Public Data.**

**Y. Ma**, S. Ye, H. Yang. **Variational Bayes for Privately Published Data.**

## PROJECTS

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**Automatic Music Generation**

[GitHub](#)

Independent study project at Duke University. Supervised by Professor Sayan Mukherjee. Paper accepted by [CSSC 2020](#) and poster won CMS-STUDC Undergraduate Poster Competition Award.

**Manifold Sampling for Optimizing Nonsmooth Nonconvex Compositions with an Additive Regularization**

[GitHub](#)

Bachelor thesis.

## PACKAGES

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[NNDensity](#) Nearest Neighbor Based Density Estimation Methods in Python.

[ExtraTree](#) Extrapolated Tree for Supervised Learning in Python.

[PDT](#) Locally Differentially Private Decision Tree in Python.

[RMusicdown](#) Music embedding in Rmarkdown using R.

## AWARDS

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- People's Scholarship 2018, 2019
- Scholarship of National Top-notch Student Training Pilot Program in Fundamental Sciences 2018, 2019, 2020
- Fellowship of Exchange Program of National Top-notch Student Training Pilot Program in Fundamental Sciences (\$15000 stipend) 2019
- Fellowship of Exchange Program of National Top-notch Student Training Pilot Program in Fundamental Sciences (\$15000 stipend) 2019
- Fellowship of Visiting International Student (\$25000 stipend) 2019
- Graduate Scholarship 2021, 2022
- Best Presentation Award in 2019 Duke Datathon 2019
- Best Presentation Award in 2020 Summer School at School of Mathematical Science, Peking University 2020