

# Jianfei Ma



## RESEARCH INTERESTS

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Deep Reinforcement Learning, Statistics, Optimization

## EDUCATION

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**Northwestern Polytechnical University**

Shaanxi, Xi'an

*Candidate for B.S. in Statistics*

*Aug. 2019 – Jul. 2023*

- Overall GPA: 3.744/4.1
- Rank: 1/24
- Major Courses: Mathematical Analysis, Linear Algebra, Real Analysis, Functional Analysis, Abstract Algebra, Probability, Mathematical Statistics, Stochastic Process, Optimization, Differential Geometry
- Other Courses: Reinforcement Learning, Statistical Learning, Machine Learning, Data Structures and Algorithms

## PREPRINT

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- Ma, J. [Distillation Policy Optimization](#). (In submission to ICML, 2024)
- Ma, J. [Entropy Augmented Reinforcement Learning](#). (arXiv, 2022)

## PUBLICATION

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- Ma, J. [Discerning Temporal Difference Learning](#). ([AAAI](#), 2024)
- Ma, J. [Generative Intrinsic Optimization: Intrinsic Control with Model Learning](#). (NeurIPS Workshop IMOL, 2023)
- Ma, J. [The Point to Which Soft Actor-Critic Converges](#). (ICLR Tiny Papers, 2023)

## EXPERIENCE

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**Distributional Model-based RL via Variational Inference**

Jun. 2023 – Present

*Research Intern with [Huazhe Xu](#)*

*Tsinghua University*

- Developing a distributional control method through probabilistic inference.
- Unifying joint evaluation & control with a world model.


**Average-Reward Least Squares Temporal Difference Methods**

Sep. 2022 – Dec. 2022

*Research Intern with [Shangtong Zhang](#)*

*University of Virginia*

- Extended average-reward off-policy LSTD( $\lambda$ ) based on MSPBE objectives
- Conducted convergence analysis of the algorithm

**Meta Reinforcement Learning** 

Jan. 2022 – Jun. 2022

*Research Intern with [Yaodong Yang](#)*

*Peking University*

- Reproduced Bootstrapped Meta-Learning paper
- Extended BMG to different meta-learning frames – TorchOpt and MetaOptim

## PROJECTS

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**MagiOPT** 

Jun. 2022 – Jul. 2022

- A Unified Pytorch Optimizer for Numerical Optimization

## AWARDS

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**ASC Student Supercomputer Challenge**

Second Class Prize, 2022

**Mathematical Contest In Modeling**

Honorable Mention, 2021

**Sanhang Cup Football Tournament**

Runner-up, 2020

**Freshman Cup Football Tournament**

Champion, 2019

**Outstanding College Student**

3 consecutive years

**First-class Scholarship**

2021 & 2022

## SKILLS

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**Programming Language:** Python, C/C++, Bash, R, Matlab

**Framework & Tools:** Git, LaTeX, Emacs, Pytorch, Tensorflow, JAX, Flax