

Feiyu Zhou

📍 Xi'an, Shangxi, China ✉ zhoufy.xjtu@gmail.com 🌐 My Page 📧 zhoufy20

Education

Xi'an Jiaotong University, China

Sept 2024 – May 2029(Expected)

*Ph.D in Department of Engineering Mechanics, School of Aerospace Multiscale Mechanics and Medical Science Lab
State Key Laboratory for Strength and Vibration of Mechanical Structures*

Lanzhou University, China

Sept 2020 – June 2024

Bachelor in Mathematics and Applied Mathematics, Cuiying Honors College

◦ GPA: 3.89 [📄](#)/5.00

◦ **Coursework:** Computer Architecture, Comparison of Learning Algorithms, Computational Theory

Hengshui High School Anhui Campus, China

Sept 2017 – May 2020

Senior in Excellence Class

Honors and Awards

- **February 2024:** Honorable Mention in the 2024 American College Mathematical Contest in Modeling.
- **February 2023:** Achieved First Prize in the "Higher Education Society Cup" National College Students Mathematical Contest in Modeling for the Gansu Region.
- **December 2021:** Awarded the Second-Class Scholarship for Outstanding Students at Lanzhou University.
- **September 2021:** Earned Second Prize in the Thirteenth National Mathematics Competition for College Students (Mathematics Class A) in China.

Publications

Convalent Bond

Sept 2024

Feiyu Zhou, Shengying Yue

Projects

Solving High Dimensional PDEs with BSDEs Using PyTorch [Github: zhoufy20/deep-bsde-pytorch](#) [📄](#)

- Cuiying Honors College Innovation Fund Project No. 20230020105 at Lanzhou University, China (March 2023 - March 2024) and the Project supervisor is [Prof. Weihua Deng](#) [📄](#)
- This repository contains Python scripts that implement solutions to backward stochastic differential equations (BSDEs) for several high-dimensional partial differential equations using PyTorch.
- We draw an analogy between BSDEs and reinforcement learning, where the gradient of the solution serves as the policy function, and the loss function is defined by the discrepancy between the specified terminal condition and the solution of the BSDE.