

Gaoming Chen

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Address: 1903 Piccard dr., Rockville, Maryland, 20850

Education:

Renmin University of China, Beijing, China

August 2020- Present

Bachelor of Science in Mathematics (Honor)

Cumulative GPA: 3.92/4.00, Rank: Top 1

Activities:

Visiting Student Researcher at Johns Hopkins University, Baltimore, MD

June 2023-Present

Research Assistant,

- Conducting Bayesian Experimental Design for Electrical Impedance Tomography (EIT), employing Python and leveraging PyTorch for acceleration.
- Analyzing the Stability of the Inverse Operator in the EIT model, utilizing Symbol Python for expression simplification.
- Participating in a data-driven inverse problem reading group.

Mathematics research program at Columbia University, Online

April 2023 - September 2023

Research Assistant,

- Executing Expression Quantitative Trait Loci (eQTL) analysis by implementing the Matrix eQTL algorithm in Python, employing parallel computation through a divide-and-conquer strategy.
- Exploring Graph Neural Networks and their application in processing high-omics data in the biological domain.

Mathematics research program at Renmin University of China, Beijing, China

May 2022 - April 2023

Research Assistant,

- Exploring Optimal Transport Theory and its application in 3D object detection utilizing realistic traffic 3D lidar data.
- Investigating the hierarchical structure of optimal transport, effectively incorporating the prior distribution of all labels.
- Studying Gromov-Wasserstein distance and its relevance to the intrinsic properties of 3D geometric structures.

Volunteers:

Da Tang Ying Hao Organization, Beijing, China

November 2019 – Present

Volunteer

- Sharing personal experience through social media to encourage type I diabetes to pursue their education and dream
- Helping other patients analyze their blood glucose, adjust insulin injection, daily diet and exercise
- Reading papers about mathematical model of Glucose-insulin system and tracing current treatment

Awards and Skills:

China Undergraduate Mathematical Contest in Modeling (**Second Prize**)

September 2022

Academic Excellence Scholarship of Renmin University of China (**OutStanding Prize**)

October 2022

The National College Mathematics Competition (**Second Prize**)

November 2021

Skills:

Latex, Python, C and C++

Language: Chinese(Native), English (Fluent)