

JIAJUN ZHU

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EDUCATION

Zhejiang University

(Expected) Sept. 2020 - Sept. 2024

B.S. in Mathematics

Rank: 3%

RESEARCH

Digital Signal Processing Group, Georgia Institute of Technology

Nov. 2022 - Oct. 2023

Research Internship

Advisor: Prof. Pan Li

- Benchmarked twelve geometric deep learning explanation methods with the purpose of scientific discovery.
- Established four fundamental observations to clarify the usage of explainability techniques.
- Drafted the article as the first author with Nature Machine Intelligence as the intended publication target.

Artificial Intelligence Laboratory, Zhejiang University

Aug. 2022 - Oct. 2022

Research Internship

Advisor: Prof. Yang Yang

- Implemented five baseline methods and analyze their performances across eight molecular datasets.
- Conducted a theoretical analysis of our method from the perspective of Taylor decomposition and finalized the corresponding section of the paper.

FlexLink Technology Co., Ltd. Hangzhou, China

Dec. 2021 - Feb. 2022

Research Assistant

Mentor: Dr. Qian Zheng

- Drew plots using python for statistics analysis. (Bland-Altman agreement, linear regression, etc.)
- Filed a utility patent application, *A Sleep-Staging Algorithm Based Evaluation of EEG Signal Quality*.

EXPERIENCE

The Seventh Finvolution Technology Cup Graph Algorithm Competition

Aug. 2022

Team Member

- Incorporated the message passing to construct a new feature and ranked 5% finally.
- Tuned hyperparameters with bayesian optimization and improved the model performance by 1%.

Online Exchange Program of Zhejiang University

May. 2022 - Jun. 2022

Team Leader

- Conducted literature research for the development of MCMC methods and guided members to complete a literature report together.
- Performed toy experiments of three classical methods to compare the convergence rate and sampling efficiency.

Student Research Training Program of Zhejiang University

Jan. 2022 - Jun. 2022

Team Leader

Advisor: Prof. Renjun Xu

- Crawled 100k+ data of electronic density and band structure from Materials Project and Crystallography Open Database.
- Reproduced baseline models for material property prediction: CGCNN and MEGNet.

MISCELLANEOUS

- Programming Skills: Python - Proficient, C++/C - Competent programmer
- Activities: Runner-up of the campus debate competition, *the 8th Shenyuan Cup*
- Scholarships: 2022 Mingyang Scholarship (select one from top four math students)