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 Tech University

Nov. 2022 - Sept. 2023

Research Internship Advisor: Prof. Pan Li

- Benchmarking geometric deep learning explanation methods with the purpose of scientific discovery.
- Established three fundamental observations to enhance the utility of natural scientists.
- Conducted a theoretical and empirical comparison of methods to improve researchers' understanding.

Artificial Intelligence Laboratory, Zhejiang University

Aug. 2022 - Oct. 2022

Research Internship Advisor: Prof. Yang Yang

- Implemented five baseline methods and compared them with our method on different molecular datasets.
- Proposed our method's theoretical background and completed the paper's theoretical analysis.

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 Staging-Algorithm-Based Evaluation Method of EEG Signal Quality.

EXPERIENCE

7th Finvolution Data Science Competition

Aug. 2022

Team Member

- Incorporated the message passing into the feature engineering and ranked 5% finally.
- Tuned hyperparameters with bayesian optimization and improved the model 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.
- Performed several toy experiments to compare the convergence rate and sample efficiency of different algorithms.

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 the baseline models: CGCNN (Xie et al., 2018) and MEGNet (Chen et al., 2018).

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 (selected from top 4 math students)