

Boyi Wei | Curriculum Vitae

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Education

University of Science and Technology of China (USTC) 2019.9 – 2023.7(expected)

Jici Yan Elite Program for Physical Sciences, Major: Microelectronics and Solid-State Electronics

Major GPA: 4.10/4.30, Cumulative GPA: 4.01/4.30, Major Rank: 1/29

Core Courses: Computer Programming A (95), Electronic Circuits (92), Digital Logic Circuits (91), Linear Algebra (93), Electronic Circuits Experiment(90), Data Structure and Database (87), Single-variable Calculus (90), Multi-variable Calculus (96), Electronic Circuits (92), Digital Logic Circuits (91), Electromagnetism (99), Electrodynamics (95), CS224W (studied on YouTube)

Award: National Scholarship (Top 1%, highest honor for undergraduates at USTC)

TOEFL iBT Test: 110 (Reading: 30, Listening: 27, **Speaking: 25**, Writing: 28)

GRE: 159 (Verbal Reasoning) + 170 (Quantitative Reasoning) + 4.0 (Analytical Writing)

Research Experience

SoC Design Lab, USTC 2021.3 – Present

Research Assistant, Advisor: Prof. Xi Jin

Project: Acceleration of graph neural network sampling algorithm

- Studied background knowledge of graph neural networks (GNN), Python, PyTorch and PyTorch-geometric (PyG).
- Proposed “CONCAT Sampler,” which theoretically reduced training time by a factor of 10 times on the reddit dataset and guaranteed an accuracy decrease of 2% or less.
- Designed several neighbor-sampler (or dataloader) based on PyG. Compared the efficiency and accuracy of the GNNs under different sampling schemes.
- Currently working to accelerate the sampling process with FPGA, with the goal of making GNNs more efficient.

Honors & Awards

- National Scholarship (Top 1%, highest honor for undergraduates at USTC) 2021.10
- Scholarship for Elite Students (Gold Award), USTC (Top 2%) 2021.10
- Jici Yan Elite Student Scholarship (A Class) (Top 2%) 2021.11
- China Undergraduate Physics Tournament (National 1st Prize) (USTC) 2021.7
- China Undergraduate Physics Tournament (Best Reporter) (Personal) 2020.11
- Scholarship for Elite Students (Bronze Award) 2020.7
- Electromagnetism Course Thesis Competition, Second Prize 2020.7
- Outstanding Freshman Scholarship 2019.10

Technical Skills

Programming: C, Python, PyTorch, PyTorch-Geometric (PyG), Deep Graph Library (DGL), SQL, MATLAB, Mathematica

Other: L^AT_EX, Origin, Windows, Ubuntu Linux, MacOS