

# Boyi Wei | Curriculum Vitae

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## Education

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University of Science and Technology of China (USTC) 2019.9 – Present

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

**GPA: 4.10/4.30** (major) **GPA: 4.01/4.30** (cumulative)

**Ranking: 1/34** in Microelectronics and Solid-State Electronics major

**Core Courses:** Computer Programming A (95), Data Structure and Database (ongoing), Electronic Circuits (92), Digital Logic Circuits (ongoing), Linear Algebra (93), Multi variable Calculus (96), Electromagnetism (99), Electrodynamics (95), Stanford CS224W (on YouTube)

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

TOEFL iBT Test: 30 (Reading) + 21 (Listening) + **24 (Speaking)** + 25 (Writing) = 100

## Research Experiences

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*Research Assistant* in SoC Design Lab, USTC

Advisor: Prof. **Xi Jin**

2021.3.– Present

Project: **Acceleration of Graph neural network sampling algorithm**

- Systematically studied the knowledge of Graph Neural Network (GNN), Python, Pytorch, Pytorch-Geometric (PyG), and Deep Graph Library (DGL)
- Purposed “CONCAT Sampler”, which can reduce the training time by a factor 10 on reddit dataset theoretically, and guarantee the accuracy decrease of 2% or less
- Designed several neighbor-sampler (or dataloader) based on PyG. Compared the efficiency and accuracy of the GNNs based on different sampling methods
- Currently working on the acceleration of the sampling process with FPGA, with the goal of making GNNs more efficient

## Honors & Awards

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- **National Scholarship** (Top 1%, highest honor for undergraduates at USTC) 2021.10
- **Scholarship for elite students (Gold Award)**  
(Top 2%, one of the highest honors for undergraduates at USTC) 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

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**Programming languages:** Verilog-HDL, C, Python, **Pytorch**, **Pytorch-Geometric (PyG)**, **Deep Graph Library (DGL)**, SQL, MATLAB, Mathematica

**Other skills:** L<sup>A</sup>T<sub>E</sub>X, Origin, Windows, Ubuntu Linux, MacOS