

# 孙奥 SunAo

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Beijing



## EDUCATION

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### Shanxi University

Feb 2019 - Jun 2022

Data science and finance Diploma Chuming college

Taiyuan

GPA: 3.37

## RESEARCH EXPERIENCE

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### BMTrain

May 2022 - Aug 2022

Main Contributor to Pipeline parallelism and ZeRO-2

Beijing

BMTrain is an efficient large model training toolkit that can be used to train large models with tens of billions of parameters. I am one of main contributors of this project and the author of pipeline parallelism and ZeRO-2 part.

### ModelCenter

Main Contributor to Sparse Attention

ModelCenter implements pre-trained language models (PLMs) based on the backend OpenBMB/BMTrain. I contributed to parts of main models like Vit and Longformer.

### ASC 2021

Accerlate Training NLP model

I was responsible for writing code for model quantification and multi-node and multi-GPU distributed training optimization. In the process ,I learned deploy training tasks in large clusters more efficiently.

### ASC 2022

Accerlate Traing NLP model

The task is to train a GPT-2 model with 4.7B parameter as fast as we can. I tried Sparse-attention , 8bit optimizer, PipeDream1f1b Pipeline schedule. And I achieve 170TFlops on the clutser with 4 A100 GPU with no nvlink or nvswitch. I enter the final with the score.

## LEADERSHIP EXPERIENCE

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### Scientific research training

Sep 2019 - Aug 2022

Leader

Taiyuan

As the leader of the undergraduate research team, I was responsible for organizing the seminar and lead our members to do research better.

## MISCELLANEOUS

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- **Skills:** Pytorch, Linux, Git, C++, Python, Pandas, Scarpay
- **Certifications:** CET-6 521 CET-4 548
- **Languages:** English, Chinese
- **Interests:** Music , Sports , Movies and Codes