Hu Chen

https://tigerrr07.github.io/tiger-website crishuz@foxmail.com +(86) 156-6583-8670

EDUCATION

Shandong University, Jinan, P.R.China September 2021 - Present
Master of Science in Data Science Expected: June 2024
GPA: 88.46/100

Shandong University, Jinan, P.R.China September 2017 - June 2021
Bachelor of Science in Mathematics and Applied Mathematicse
GPA: 88.39/100

INDUSTRY EXPERIENCE

Zhejing Lab August 2022 - February 2023
Intern, Graph Computation Center

- Participated in the Large-Scale Challenge (OGB-LSC), a graph machine learning competition with three colleagues, to predict HOMO-LUMO gap property of molecules on the quantum chemistry dataset PCQM4Mv2.
  - Designed a hybrid GNN model, which incorporated 2D topological structure and 3D conformation information into message passing in graph neural networks.
  - Paralled with Pytorch Distributed Data Parallel (DDP) for fast training on the large scale dataset.
  - Ranked 11th on the final leaderboard and trained the model for only 24 hours on about 3 million molecules.
- Built a medical knowledge graph that contains entities such as drugs, proteins, gene ontology, diseases and their relationships, such as drug-protein binding, protein-protein interaction, drugs causes side-effcet etc.

Huawei Technologies Co., Ltd. March 2021 - June 2021
Intern, Theory Lab

- Designed a graph algorithm based on linear algebra to find the k-Core of the graph, which is the largest subgraph where every node has degree at least k.
- The algorithm was implemented using CUDA on the GPU. It outperformed baselines provided by 2 to 4 times.

PROJECTS EXPERIENCE

KuiperInfer as a contributor March 2023 - Present

- A DIY deep learning inference framework using C++17.

HPC for graphs with Prof. Guanghui Wang July 2021 - October 2021

- Designed efficient graph algorithms to find and count cycles in graphs under constrained conditions.
- Used BFS and queue techniques to store potential paths that make up the cycle. And optimized with the parallel library OpenMP in C++.
- Achieved expected performance and completed the acceptance of the cooperative company.

TEACHING EXPERIENCE

SDU Linear Algebra, *Teaching Assistant* Spring 2023
SDU Calculus II, *Teaching Assistant* Fall 2021

HONORS REWARDS

2022 SDU First Prize of Graduate Scholarship
2021 Third Prize of "Huawei Cup" The 18th China Post-Graduate Mathematical Contest in Modeling
2021 Excellent Graduate of Shandong Province
2020,2019,2018 SDU Third Prize of Undergraduate Scholarship

2019,2018 Third Prize in the 9th National College Student Mathematics Competition

COMPUTER SKILLS

Programming: Python, C++, CUDA
Frameworks: Pytorch
Tools: Linux, VScode, Git, Github