

lry89757@github.io Portfolio

Hope: Looking for chances of **Summer Research Experience in USA or Singpore onsite about ML Compiler**. I can cover the expenses myself, but any assistance in the form of a fund would be greatly appreciated.

SKILLS

AI Familiar with training and deploying common CV Models

HPC Have developed many high performance neural network operatorsCompiler Optimizing the backend LLVM and interested in the DL Compiler like TVM

EDUCATION

Bachelor of Computer Science Huazhong University of Science and Technology, GPA: 3.96/4.00 Sept. 2020 — June 2024

INDUSTRIAL EXPERIENCE

Develop High Performance Neural Network Inference Engine, Tencent Company

July 2022 — Nov. 2022

- Role: Top 15 committer of 253(util Nov.2022), Mentor: nihui, with 5.6k followers in Github
- Write and Optimize high performance operators and math library for ncnn, an open source project with nearly 17k stars in Github, mainly aligned with pytorch. Such as GridSample: Given an input and a flow-field grid, computes the output using input values and pixel locations from grid.

Optimize the Backend of LLVM, Sensetime Company

April 2023 — Present

- Role: Intern, Mentor: Wengiang Yin
- Write new passes to optimize the performance and support more instructions based on the new AI chips of Sensetime
- ISA just like NV PTX

Deploy High-FPS AI Models on Arm Chips, FiberHome Telecommunication Company

April 2021 — June 2021

- Role: **Leader**, Mentor: Yayu Gao
- As the project leader, I am responsible for the whole process of calibration samples, selection, training network
 (lite-mspn/yolox) and deployment of high-performance Inference Networks on Arm CPU. Finally We perfectly met the
 high FPS demands of our clients.

ACADEMIC EXPERIENCE

Explore More Efficient PMA/PCSR Dynamic Graph Structure

Nov. 2022 — Present

- Role: Research And Coding Mainstay, Mentor: Zhiyuan Shao, Hai Jin
- Based on the current dynamic graph storage formats of PMA/CSR, a more dynamic-graph-friendly data storage format is proposed, which involves modifications to the operating system kernel

Explore Backdoor Attack on Transformer Models

April. 2022 — Augu 2023

- Role: Research And Coding Mainstay, Mentor: Kun He
- Research the model security of classic classification models such as ViT and DeiT, with a focus on black-box attacks.

AWARDS & HONORS

Industrial

Tencent Rhino-bird Open-source Training ProgramScholarship (2022), Like "the 'GSOC' of Tencent" Huawei Intelligent Base Scholarship (2022)

Academic

Science and Technology Innovation Scholarship (2022), School of Computer Science and Technology, HUST Academic Excellence Scholarship (2021 and 2020), School of Computer Science and Technology, HUST

More Info

For better reading experience and more detailed information, you're welcome to visit lry89757@github.io:)