Pingwei Sun

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Education

The Hong Kong University of Science and Technology *Hong Kong, China*

Master of Science in Big Data Technology *Sep 2023 - Jul 2024*

- **I am now an incoming student.**

Northeastern University *Liaoning, China*

Bachelor of Engineering in Artificial Intelligence *Sep 2019 - Jul 2023*

- **GPA: 90.23/100**
- **Courses:** Probability Theory and Statistics, Discrete Mathematics, Optimization Theory, Data Structure, Algorithm Design, Computer System, Machine Learning, Pattern Recognition, Deep Learning, Natural Language Processing
- **Extracurricular Activities:** Leader of the official visual studio of Northeastern University

Honors (selected)

2020	**National Scholarship**, Northeastern University	*Liaoning, China*
2020	**First-class Scholarship**, Northeastern University	*Liaoning, China*
2021	**Outstanding Student Journalist**, Northeastern University	*Liaoning, China*
2022	**Third Prize in "Loongson Cup"**, National Student Computer System Capability Challenge	*Beijing, China*

Skills

Programming Python (PyTorch, DeepSpeed, etc.), C/C++, Verilog, Vivado, Linux, Git

Soft Skills Time Management, Teamwork, Documentation

Language IELTS 7.0 (Aug, 2022)

Experience

Tensor Lab, OPPO Research Institute *Beijing, China*

Algorithm Engineer (Intern) *Mar 2023 - Jul 2023*

- **High-performance deployment:** Improve Bert-liked pretrained models' inference performance on smartphones. Investigate the landscape of LLM's deployment on smart devices. The project of LLM on smartphones has been approved for establishment.
- **Efficient matrix multiply kernel:** Optimize the matrix multiply kernel for the self-developed framework.

School of CSE, Northeastern University *Liaoning, China*

Teaching Assistant *Sep 2022 - Jan 2023*

- **Virtual Environment:** Build the docker image needed for the experiment and make it accessible through the web page.
- **Guidebook:** Design experiment content and scoring criteria (**refer to repo**).
- **Q&A:** Provide lecture and lab instruction to students in class.

Projects

High-performance CPU design and AI application based on MIPS *Liaoning, China*

School of CSE, NEU *June 2022 - Sept 2022*

- A dual-issue six-stage pipeline CPU based on MIPS was built, and it cooperates with a CNN acceleration core to process the MINIST data. All designs are coded in Verilog and implemented on FPGA board. It is also my graduation thesis, and has received excellent reviews from professors.

BERT based Sentiment Classification *Liaoning, China*

NEU NLP-Lab *June 2021 - Sept 2021*

- Based on the BERT model, this project enhances the performance of the model on extremely unbalanced data sets through a variety of fine-tuning methods and the pretrain task of comparative learning.

Fundus Image Analysis based on Deep Learning Methods *Liaoning, China*

NEU MIIC-Lab *June 2021 - Sept 2021*

- The analysis of fundus images can provide assistance in the diagnosis of diabetic retinopathy and other diseases. This project includes several sub-modules of the diagnosis system, including macular positioning, blood vessel segmentation, and DR grading diagnosis.

References available upon request.