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 the Northeastern University

Skills

Programming	Python, 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 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, which 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 a **contrastive learning** task.

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

NEU MIIC-Lab   *June 2021 - Sept 2021*

- This project includes several sub-modules of the diabetic retinopathy diagnosis system, including macular positioning, vascular segmentation, and grading. Models like YOLO, U-Net, and Efficientnet are applied to analyze fundus images and assist in the diagnosis of DR.

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*

References available upon request.