

PEIRAN WEI

✉ pw19@illinois.edu · 📞 (+86) 158 6881 2591 · 🌐 Promissa · **Personal Page**

🎓 EDUCATION

University of Illinois Urbana-Champaign, Illinois, U.S. Aug 2022 – Present

B.S. in Electrical & Computer Engineering (ECE), expected Jun 2026
GPA: 3.61 / 4.00

Zhejiang University (ZJU), Zhejiang, China Aug 2022 – Present

B.S. in Electrical & Computer Engineering (ECE), expected Jun 2026
GPA: 3.90 / 4.00

📖 RELEVANT COURSEWORK

- ECE364 - Programming Methods for ML (A)
- ECE408 - Applied Parallel Programming (A)
- ECE490 - Introduction to Optimization (A+)
- CS441 - Introduction to Applied ML (A)

📁 COURSE PROJECTS

ECE408 - Optimized CUDA implementation of convolutional layers Feb 2025 – May 2025

- Implemented and optimized the forward-pass of a convolutional layer using CUDA. Obtaining practical experience in analyzing and fine tuning CUDA kernels through the use of profiling tools like Nsight Systems and Nsight Compute. The optimization is evaluated by leveraging the Mini-DNN framework for implementing the modified LeNet-5 with Fashion MNIST dataset as input.
- Combining various different optimizations, including streams overlapping, tensor cores, constant memories and shared memory tiling, to improve the overall op time from 91.56ms (naive kernel-fusion) to 41.72ms.

📄 WORKING PAPER

[1] Peiran Wei, Yao Lu. SEC Table Dataset for table parser AI

🔍 RESEARCH INTEREST

LLM for Infra, Efficiency of LLM, Data Science, Computing Optimization

👤 EXPERIENCE

ByteDance Ltd. Jun 2025 – Present

R&D for Infra Group Leader: Tieying Zhang

- Working on LLM for infra with ByteBrain team until Jun 2026 (expected).
- Developed a data parser for complex tables from documents of multiple formats. Combining AI-driven visual recognition with a code parser to reduce hallucinations of contents in high-token scenarios and improve accuracy in both grid structure and content of items.

SEC Table Dataset Jun 2024 – Present

Research Assistant Instructor: Prof. Yao Lu, NUS CS

- Developed a data parser aiming at extracting SEC tables from the original HTML file and standardizing the format by LLM.
- Developed a dataset containing parsed csv tables from public financial reports from SEC, including 10-K, 10-Q, 20-F, S-1, S-3, etc.

MATH241 - Calculus III

Sept 2023 – Jan 2024

Teaching Assistant Instructor: Prof. Thomas Honold, ZJU-UIUC

- Developed a notes-sharing website for students when serving as TA of the curriculum.
- Notes are all written in Markdown and the project is deployed through Vercel.
- Reached over 1K views in total throughout half of the semester.

VTOL Aircraft with Autonomous Cruise Function

Jun 2023 – Sept 2023

Research assistant & Program Leader Instructor: Prof. Jiahuan Cui, ZJU-UIUC

- VTOL refers to vertical take-off and landing.
- Participated in building up the electronic control system based on Teensy 4.0 and Arduino.

⚙️ SKILLS

- Programming Languages: C == Python > C++ > HTML
- Math Related: Matlab, Mathematica, \LaTeX
- Data Related: PyTorch, CUDA, MySQL

♥️ HONORS AND AWARDS

Academic Poster Exhibition of 2023 SRTP Program, awarded by ZJU-UIUC

2023