Jason (Zheng Jian) Li

CS & Stats 3rd Year

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scholar.google.ca/citations?user=E1LQD-IAAAAJ&hl=en

EDUCATION

University of Waterloo - Bachelor of Math: *Computer Science & Statistics Double Major*
Cumulative GPA: 93
Scholarships and Awards:
- President's Research Award, President's Scholarship of Distinction

SKILLS

Languages: C, C++, CUDA, OpenCL, Rust, Java, SQL, R
Technologies: PyTorch, Tensorflow, scikit-learn, numpy, pandas, GPU programming, LLVM

PUBLICATIONS

zkDL: Efficient Zero-Knowledge Proofs of Deep Learning Training
Haochen Sun, Tonghe Bai, **Jason Li***, Hongyang Zhang*
- Preprint: https://arxiv.org/abs/2307.16273

NutritionVerse-Thin: An Optimized Strategy for Enabling Improved Rendering of 3D Thin Food Models
Chi-en Amy Tai,* **Jason Li***, Sriram Kumar*, Saeejith Nair, Yuhao Chen, Pengcheng Xi, Alexander Wong*
- Poster at WiCV Workshop at ICCV 2023

PROJECTS

Drug Binding Sites Predictor
https://devpost.com/software/lstm-embeddings-gnn
- Winning model of the UWaterloo CxC data science competition
- Built using LSTM embeddings (from bioembeddings) of proteins and a DeeperGCN Graph Neural Network implemented with PyTorch-Geometric

2D Game Engine
Video Demo: https://youtu.be/WCyGKxz2ur0
- C++ 2D ASCII Game Physics and Graphics engine built using the Linux NCurses library
- Offered support for creating practically any kind of 2D terminal game

EXPERIENCE

Research Assistant - *UWaterloo Safe AI Lab (SAIL)*
July 2023 - Present
- Supervised by Professor Hongyang Zhang and PhD candidate Haochen Sun
- Worked on the zkDL project
- Currently working on super low bit (sub 2) quantizations of Large Language Models

Compiler Engineer Intern - *Huawei Technologies Canada (Compiler Lab)*
May 2023 - Aug 2023
- Worked with GPU compiler team on their LLVM based compiler for Huawei's mobile iGPU
- Wrote C++ programs with OpenCL kernels to benchmark compiler performance
- Made various algorithmic optimizations such as increased precission NOP instruction insertions causing code length optimization of up to 10%

Research Assistant - *UWaterloo Vision and Image Processing Lab*
Sept 2022 - May 2023
- Supervised by Professor Alex Wong (Canada Research Chair in AI and Medical Imaging & Co-founder of Darwin AI) and Assistant Professor Yuhao Chen
- Conducted research to enhance NeRF (Neural Radiance Fields) models, which learn implicit 3D models from 2D images