Chengshuo (Danny) Jiang

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EDUCATION

University of Michigan–Ann Arbor, Ann Arbor, MI — Sept 2022 – May 2025

- **Computer Science** (BSE) | GPA: **3.93**/4.00
- Course Highlights: Information & Data Structures (C++), Computer Organization, Computer Algorithms, Computer Security, Machine Learning, Database Management Systems, Web Systems, Software Engineering, Computer Vision (in progress), Machine Learning Research Experience (in progress)

University of Wisconsin–Madison, Madison, WI — Sept 2021– May 2022

- Major in Computer Science | GPA: **4.00**/4.00

SKILLS

- Programming Languages: Java, C++, Python, JavaScript, HTML, Bash, SQL
- Software Skills & Frameworks: React, Flask, REST API, Linux, Docker, PyTorch, TensorFlow, Git, CI/CD
- GitHub Profile: https://github.com/DannyJiang1

RELEVANT EXPERIENCE

PowerInfer Adversarial Attack Research, Ann Arbor, MI — May 2024 – Present

Mentored by PhD Student Haizhong Zheng

- Conducted an in-depth analysis of the PowerInfer codebase to understand the mechanisms behind GPU/CPU splits, focusing on the allocation of cold and hot neurons and the role of additional MLP-based neuron activation predictors in optimizing performance and efficiency
- Ported the PowerInfer model to Python/PyTorch and **successfully achieved adversarial jailbreaking prompts,** while investigating potential efficiency attacks to further assess model vulnerabilities
- Benchmarked PowerInfer's performance on llama models using various hyperparameters, analyzing how different CPU/GPU splits affect model speed and accuracy

SUSE Linux s.r.o, Prague, CZ — Jun 2023 – Aug 2023

Software Engineer Intern

- Developed and optimized containerized scripts for Project Iguana on the Factory Team, creating an initial ramdisk (initrd) to automate system environment setup across diverse hardware using container orchestration
- Designed and implemented containers for partitioning, **successfully tested across 5 different devices and 5 configurations** each, achieving successful deployments to ensure cross-hardware reliability
- **Reduced partitioning runtime by 8%** through regex input parsing optimizations, enhancing performance and efficiency of the setup process

PROJECT EXPERIENCE

ASL Battle — Oct 2024 – Oct 2024

Multiplayer Gamified ASL Learning

- Co-developed **ASL Battle**, an interactive ASL learning game built in Unity, which won **Best AR Track** at XR-Midwest Hackathon, blending education and gameplay to make learning American Sign Language engaging and accessible
- Designed and implemented the **multiplayer component** using an Express.js API server and real-time communication facilitated by Socket.IO, ensuring smooth interactions between players in multiplayer modes
- Developed **custom hand gesture detection** for all ASL alphabet letters using Meta's Interaction SDK, enhancing the game's educational value and ensuring accurate gesture recognition

Stock Price Predictor LSTM Model — Jun 2024 – Present

Independent Project

- Developed a robust LSTM-based machine learning model that achieved a **53% accuracy** in predicting stock closing price movements, incorporating advanced technical indicators and macroeconomic factors
- Implemented comprehensive data preprocessing pipeline utilizing the Yahoo Finance API for historical stock data, along with FRED API for macroeconomic indicators.
- Engineered a scalable feature scaling and transformation workflow, ensuring consistent data handling for both training and prediction phases, and trained and saved **5 different models** using this automated workflow to optimize performance and accuracy