Peiyuan Li

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EDUCATION

Brown University *Providence, RI, US*
Master of Science in Computer Science Expected Graduation May 2026
- **GPA:** 4.00 / 4.00
- **Relevant Courseworks:** Deep Learning, Self-Supervised Learning, Computer Vision, AI Security

University of Wisconsin - Madison *Madison, WI, US*
Bachelor of Science in Computer Sciences and Data Science Double Major, Sep. 2020 - May 2024
- **GPA:** 3.73 / 4.00, Honors: Dean's List (2020, 2021, 2022, 2023)
- Vice President and Director of Fundraising & Public Relations of Student Union.
- **Relevant Courseworks:** Data Structures, Algorithms, Machine Learning, Computer Graphics, Database, OS

SKILLS

AI/ML: Python, PyTorch, TensorFlow, LangChain, LangGraph, RAG, MCP
Frontend: HTML, CSS, JavaScript, TypeScript, React, Next.js, Tailwind
Backend: Java, Spring, Django, MyBatis, Node.js, RabbitMQ, Redis, MySQL, PostgreSQL
Other: C, Go, R, Git, Linux/Unix, Docker, AWS, GCP, CI/CD, Maven, JIRA, GTEST, MOCKCPP

WORK EXPERIENCE

GreenSand AI *Remote, US*
AI Software Engineer Intern Oct. 2025 - Jan. 2026
- Architected a full-stack AI contract analysis platform using **Django (backend)** and **React (frontend)**, supporting automated extraction of risks, clauses, obligations, and CRM fields from complex PDF contracts with coordinate-mapped highlighting.
- Designed and implemented a multi-agent reasoning framework with **LangChain/LangGraph**, incorporating explicit agent role separation, tool-calling, contextual memory modules, and RAG workflows, enabling robust, high-accuracy contract understanding and decision automation.

Huawei Technologies Co., Ltd (https://www.huawei.com/en/) *Shenzhen, GuangDong, China*
AI Infrastructure Engineer Intern, Unified Bus Dev Team July 2025 - Sep. 2025
- Developed the **receive-queue** module for **Clan-DMA**, a DMA feature within Huawei Unified Bus protocol, enabling **multi-node concurrent DMA** transfers instead of traditional one-to-one communication, and supporting scalable data exchange across **900+** devices for large-scale AI training and datacenter workloads.
- Constructed comprehensive **integration and contract testing frameworks** for the Unified Bus protocol and orchestration layer, raising critical release code coverage from **93% to 98.9%**, eliminating **40%** of high-level stubs, and reducing integration defects by **30%**.

Epic Systems Corporation (https://www.epic.com/) *Madison, Wisconsin, US*
AI Software Engineer Co-op Feb. 2024 - Apr. 2024
- Designed a **retrieval-augmented generation** (RAG) system for Epic's leading medical AI chatbot MyChart, using LangChain and Epic's clinical vocabulary to automatically map complex medical terminology to patient-friendly explanations, improving communication satisfaction rate by **12%.**
- Implemented an intelligent **keyword detection and context injection pipeline** that identifies medical jargon in real-time conversations and retrieves relevant plain-language explanations from Epic's knowledge base, enabling dynamic AI-powered translation of clinical terms during patient interactions.

Shenzhen Wande Software Co., Ltd. *Shenzhen, GuangDong, China*
Software Engineer Intern May 2021 - Sep. 2021
- Developed an construction project management system using Spring Boot, MyBatis, Redis, JDBC, RabbitMQ, and Maven, optimizing SQL architecture and improving front-end integration efficiency.

PROJECT EXPERIENCE

S2D2: A Self-Supervised Dataset Distillation Framework for Foundation Models Nov. 2024 - Feb. 2025
- Developed an unsupervised dataset distillation framework combining self-supervised learning (DINOv2/CLIP) with hierarchical clustering and soft-label optimization, enabling model-agnostic compression that distills ImageNet-1K to **1,000-10,000 synthetic images** while maintaining generalization performance across foundation models.

Music OCR System Based on ViT-YOLO Architecture Sep. 2024 - Dec. 2024
- Developed an OCR system that converts sheet music images into playable audio by integrating YOLOs efficient local object detection with Vision Transformers global context modeling, achieving 98% accuracy on the **DeepScores v2** dataset. The system reconstructs audio through graph-based analysis and timefrequency mapping, enabling the generation of high-fidelity audio from a single sheet music image in 2 seconds.