

Peiyuan Li

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EDUCATION

Brown University

Master of Science in Computer Science

• **GPA:** 4.00 / 4.00

• **Relevant Coursework:** Deep Learning, Self-Supervised Learning, Computer Vision, AI Security

Providence, RI, US

Expected Graduation May 2026

University of Wisconsin - Madison

Bachelor of Science in Computer Science and Data Science

• **GPA:** 3.73 / 4.00, Honors: Dean's List (2020 - 2023)

• Vice President and Director of Fundraising & Public Relations of Student Union.

• **Relevant Coursework:** Data Structures, Algorithms, Machine Learning, Computer Graphics, Database, OS

Madison, WI, US

Double Major, Sep. 2020 - May 2024

SKILLS

Languages: Python, C/C++, Java, JavaScript, TypeScript, Go, SQL, R, HTML, CSS

AI / ML: PyTorch, TensorFlow, LangChain, LangGraph, RAG, MCP, Agentic AI

Full Stack: React, Next.js, Spring Boot, Django, Node.js, Figma, Tailwind, shadcn/ui

Infrastructure & Tools: Docker, Kubernetes, AWS, GCP, Linux/Unix, Git, CI/CD, Redis, RabbitMQ, PostgreSQL, MySQL

WORK EXPERIENCE

GreenSand AI

AI Software Engineer Intern

Remote, US

Oct. 2025 - Jan. 2026

- Architected a full-stack **AI contract gatekeeper** using **Django** and **React**, featuring a PDF parsing engine that visualizes compliance risks by rendering color-coded overlays directly on the document canvas.
- Developed a **regulatory RAG engine** that indexes external legal statutes and corporate playbooks. Implemented **hybrid search** (keyword + semantic) to accurately map vague contract language to specific compliance standards, ensuring high-recall retrieval of governing laws.
- Designed an **automated auditing pipeline** using **Chain-of-Thought (CoT)** prompting to evaluate clauses against retrieved standards. Enforced structured **JSON output** to categorize risks (High/Medium/Low) and generate specific red-line suggestions for the frontend.

Huawei Technologies Co., Ltd

AI Infrastructure Engineer Intern, Unified Bus Dev Team

Shenzhen, Guangdong, China

July 2025 - Sep. 2025

- Optimized the **Clan-DMA** subsystem within the Unified Bus protocol by implementing a high-throughput **receive-queue mechanism**, shifting from point-to-point to **multi-node concurrent DMA**. This architecture supported scalable interconnects across **900+ devices** for large-scale AI cluster training.
- Built a distributed **integration testing framework** for the orchestration layer, improving release stability by increasing code coverage from **93% to 98.9%** and eliminating **40%** of legacy mocks (stubs), directly reducing regression defects by **30%**.

Epic Systems Corporation

AI Software Engineer Co-op

Madison, WI, US

Feb. 2024 - Apr. 2024

- Integrated a **Medical Simplification Service** into the MyChart backend using **RAG**. Built a pipeline that translates high-complexity clinical codes (aligned with SNOMED CT / ICD-10) and "doctor jargon" into plain English for patients.
- Engineered a real-time **Entity Extraction System** that detects obscure medical terminology (e.g., abbreviations, Latin terms) during live chats. Implemented **real-time suggestions** that instantly provide plain-language definitions, improving patient comprehension metrics by **12%**.

PROJECT EXPERIENCE

Interactive AI Learning Platform (Full-Stack SaaS)

Dec. 2025 - Present

- Architected a high-performance educational SaaS platform using **Next.js 16** (Frontend) and **Laravel** (Backend). Designed a decoupled RESTful architecture that separates content rendering from data services, ensuring scalability for media-rich AI tutorials.
- Engineered a custom **AST-based Rendering Engine** in TypeScript that parses **MyST-syntax** Jupyter Notebooks (.ipynb) and Markdown. Integrated native support for **KaTeX** formulas and dynamic code cells, transforming complex scientific directives into an interactive Virtual DOM.

S2D2: Self-Supervised Dataset Distillation for Foundation Models

Nov. 2024 - Feb. 2025

- Developed a novel **Data-Centric AI framework** to optimize training efficiency. Leveraged **Self-Supervised Learning (DINOv2)** to extract semantic features from massive unlabeled datasets without human annotation.
- Implemented a **hierarchical clustering algorithm** to identify and prune redundant data points. Successfully distilled ImageNet-1K to **1% of its original size** (synthetic representative set) while retaining **95%** of the generalization performance for downstream model training.