

WEIEN (BARRY) LI

New York, NY

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EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, SLOAN SCHOOL OF MANAGEMENT Cambridge, MA
Master of Business Analytics, Operations Research Center, GPA: 4.8/5.0 2024 - 2025

- Coursework: Machine Learning, Optimization Methods, Analytics Edge, Analytics Lab, Analytics to Action
- Analytics Edge Project: Designed a movie recommendation system incorporating novelty and diversity (Python)

McGill University Montreal, Canada
Bachelor of Science in Computer Science, GPA: 3.95/4.00 2019 - 2023

- Coursework: Reinforcement Learning, Intelligence Software System, Database System, Operating Systems, Applied ML
- Honors: "Bourses d'excellence" Bursary, Faculty of Science Scholarship, Graduation with Distinction

TECHNICAL SKILLS

- Programming Languages: Python, C/C++, Java, SQL(Postgres, DB2), R, Julia, Bash, Ocaml
- ML & AI: Pytorch, Langchain, LangGraph, Tensorflow, Ultralytics, Huggingface Transformer, XGBoost, Scikit-Learn
- Data Science & Analytics: Numpy, Pandas, Matplotlib, Seaborn, Pyspark
- Cloud Deployment: Flask, FastAPI, GCP, Docker, Traefik

EXPERIENCE

Invisible Technologies New York, NY
AI unicorn focused on AI training and deploying machine learning systems for enterprise workflows.

Data Scientist/Forward Deployed Engineer Oct. 2025 - Present

- Built and adapted production AI systems across manufacturing and legal workflows, spanning computer vision, LLM agents, hierarchical RAG, LoRa-based SFT, synthetic data generation, and evaluation pipelines
- Owned end-to-end technical delivery across data pipelines, model development, backend implementation, frontend integrations & design, authentications, asynchronous workflows and production monitoring
- Partnered with client stakeholders to identify high-value workflows, scope technical solutions, build prototypes and pilots and translate business requirements into deployable AI products

MIT OPERATION RESEARCH CENTER/META Cambridge, MA
Research Assistant Under Professor Vivek Farias Sep. 2024 - May. 2025

- Developed and tested Anomaly Transformer models for Meta's data centers, demonstrating a 20% accuracy improvement in anomaly detection, with the potential to enhance real-time water monitoring and sustainability efforts

MIT/WAYFAIR LLC Cambridge, MA
Gen-AI Lab Team Member Jan. 2025 - May 2025

- Awarded 2nd place out of 29 teams in MIT GenAI Lab for solution design, technical depth, and business impact.
- Engineered an option-based image synthesis pipeline using Google BigQuery and Gemini that dynamically recolor furniture in context, enabling stress tests of Wayfair's CLIP-based Search by Photo model under realistic appearance shifts
- Designed a comprehensive evaluation framework combining a custom confusion matrix (using precision@6), LLM-as-a-judge analysis, and NLI-based reasoning to evaluate the effect of option-based synthesis on retrieval robustness
- Developed an LLM-based sanity-check mechanism to detect unrealistic generations and iteratively refined prompts to improve visual quality and better stress-test Search by Photo performance

SIMPLEWAY TECHNOLOGY CO., LTD. Chengdu, China
Startup that specialize in building machine learning pipelines for enterprises

Machine Learning Engineer May 2024 - Sep. 2024

- Optimized an AI-powered robotic garbage sorting system, boosting accuracy from 70% to 90% and reducing robotic arm lag from 10s to 1s using fine tuned YOLO model and a custom-developed sorting algorithm
- Built an end-to-end LLM-powered client interaction agent, leveraging RAG achieving over 90% retrieval accuracy and ensuring memory retention in API-based responses (Acknowledged in <https://arxiv.org/pdf/2504.14493>)

RESEARCH & SELECTED PUBLICATIONS

- **MINER: Mining Multimodal Internal Representation for Efficient Retrieval - First Author** Under Review (NeurIPS) A method that use internal representation to improve retrieval quality while preserving efficiency
- **CARE: Privacy-Compliant Agentic Reasoning with Evidence Discordance - Co-author** Under Review (ACL ARR)
- **QUACK: Questioning, Understanding, and Auditing Communicated Knowledge in Multimodal Social Deduction Agents - Co-author** Under Review (ACL ARR)

Full publication is available at my [Google Scholar](#)

ADDITIONAL INFORMATION

- Interests: Amateur Basketball Player, High school French Horn player, Baseball watcher