

DAKSHA LADIA

+14134661092 | dakshaladia@gmail.com | dakshaladia.me | linkedin.com/in/dakshaladia | github.com/dakshaladia

WORK EXPERIENCE

Member of Technical Staff

July 2026 - Present

Luma AI <https://lumalabs.ai/>

Redwood City, CA

- Develop systems for generative media products, working across image layering agents, inference pipelines, evaluation, and production infrastructure.

Co-Founder

Feb - June 2026

Physical AI Data Co <https://physicalaidata.co/dashboard>

- Built an end-to-end multimodal data platform for industrial robot arms, collecting, synchronizing, and visualizing RGB, tactile, force/torque, joint-state, and action signals.
- Designed time-alignment pipelines that turned asynchronous sensor streams into coherent, training-ready datasets for robot-policy learning and physical-AI research.

Research Extern

Jan 2026 - May 2026

Allen Institute for AI (AI2)

- Co-developed a declarative probabilistic framework that evaluates semantic constraints over language model token predictions using weighted model counting; introduced calibrated token event probabilities and probabilistic consistency metrics.
- The research paper got accepted and was nominated for an award at **EMNLP'26**. [link to the paper](#)

Machine Learning Engineer Intern

May 2025 - Aug 2025

System1

Los Angeles, CA

- Built a multi agent Text to SQL system over enterprise data using RAG and execution based feedback validation, achieving 98% query execution success; containerized experiments with Docker for reproducible iteration.
- Designed automated evaluation and regression pipelines for model and prompt changes

Software Engineer

June 2020 - July 2024

Microsoft

- Improved large scale offline ad simulation and ranking evaluation over 2TB/day production data, reducing compute cost 9% and runtime 15% through sampling and evaluation optimizations.
- Built a regression testing framework for parallel feature branch evaluation, reducing manual validation effort by ~90% and enabling systematic model and code comparisons.
- Improved ad click prediction models and led production experimentation, achieving up to 4% AUC gain across markets and 4% higher advertiser engagement.

RESEARCH

Virtual Community: An Open World for Humans, Robots, and Society | ICLR 2025 Accepted | [link to the paper](#)

- Built an open world embodied AI simulation platform; generated benchmarks across agents, scenes, speed, and resolution.

Training robot arms to play musical instruments | github.com/dakshaladia/vla-training-robot

- Fine tuned the MolmoAct2 model on teleoperated demonstrations and deployed it on an SO 101 robot arm to learn and execute xylophone playing tasks. Won First prize at Mission Robotics Hackathon for best visualization of the team's work.

Enhanced Information Retrieval via Query Synthesis

- Developed a retrieval pipeline using document segmentation, pseudo query generation, semantic matching, and embedding search; improved precision 4% over a BM25 baseline.

TECHNICAL SKILLS

Languages and systems: Python, Java, C#, SQL, AWS, Docker, data pipelines, inference pipelines, evaluation, experimentation, regression testing, production infrastructure

ML and physical AI: PyTorch, Hugging Face, FAISS, NumPy, Pandas, robot learning, VLA fine-tuning, multimodal data processing, tactile and force data, retrieval, LLM agents

EDUCATION

M.S. in Computer Science | University of Massachusetts Amherst

May 2026

B.Tech. in Computer Science and Engineering | Manipal Institute of Technology

June 2020