# Yudong Li

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github.com/YudongLi90

AI/ML Engineer (MS in CS, Dec. 2025) with 5 years of experience designing, building, and deploying scalable machine learning solutions. Proven expertise in the full MLOps lifecycle, including CI/CD, Kubernetes, and cloud platforms. Experienced in leading 3-5 person teams and developing solutions with Deep Learning (Transformers, NLPs) and Reinforcement Learning.

## **Professional Experience**

## National Renewable Energy Laboratory

Oct 2019 - Present

Research Engineer/Team Lead

Golden, CO

- Led the development and deployment of AI models leveraging Transformer architectures for fast material characterization, reducing testing time by 90% and securing \$2M in funding.
- As project lead, designed and implemented deep Reinforcement Learning agents to optimize complex, dynamic industrial control systems. Attracted \$300K funding from industry partners.
- Engineered and automated end-to-end MLOps pipelines on HPC clusters, integrating CI/CD and Kubernetes to reduce model training and deployment time by 70%.

## The University of Alabama High Performance Computing (UAHPC) group

Aug 2018 - Dec 2018

Student Assistant (System Administrator)

Tuscaloosa, AL

Administered HPC clusters, including daily management, troubleshooting, and user training.

#### Education

## Georgia Institute of Technology

Expected Dec. 2025

Master of Science in Computer Science (GPA: 4.00 / 4.00)

Altanta, GA

• Relevant Coursework: Natural Language Processing, Machine Learning, Deep Learning, Reinforcement Learning, Computer Vision, Artificial Intelligence, Graduate Algorithms, Operating Systems, Information Security, Bayesian **Statistics** 

#### The University of Alabama

May 2019

PhD in Materials Metallurgical Engineering (GPA: 3.92 / 4.00)

Tuscaloosa, AL

• Relevant dissertation work: Developed simulation software in C and C++ for modeling of material chemical reaction processes. Applied machine learning techniques to predict material properties from experimental data.

#### Technical Skills

ML/AI: PyTorch, TensorFlow, HuggingFace, Sci-kit Learn, LLMs (GPT, BERT), Transformers, Generative AI, Reinforcement Learning (PPO, MAPPO, Actor-Critic), NLP, Computer Vision

MLOps/Cloud: MLOps, CI/CD, Kubernetes (Rancher), Docker, AWS, HPC Clusters (Linux)

Software: Python, C++, Flask, Vue.js, MongoDB, Qt, Git, SQL

### **Projects**

Generative AI: Transformer for Information Retrieval & Language Generation: Implemented and trained a Transformer-based sequence-to-sequence model from scratch, demonstrating expertise in attention mechanisms and architectures foundational to modern LLMs.

Multi-Agent Reinforcement Learning (MAPPO): Implemented multi-agent Proximal Policy Optimization (MAPPO) algorithms in PyTorch for cooperative learning environments, relevant to AI agent creation.

Autonomous Driving Agent (AWS DeepRacer): Trained a multi-modal autonomous driving agent using Actor-Critic (PPO) models, integrating data from Stereo-Vision and LIDAR sensors.