Yudong Li

205-886-1174 Yudong.Li@gatech.edu linkedin.com/in/yudongli1 github.com/YudongLi90

Machine Learning Research Engineer (MS in CS, Dec. 2025) with 5 years experience in Deep Learning and Reinforcement Learning. Experienced in full MLOps lifecycle, from development to deployment to solve complex real world challenges. Proven ability to lead 3-5 person teams and deliver complex projects.

Professional Experience

National Renewable Energy Laboratory Oct 2019 – Present
Research Engineer/Team Lead *Golden, CO*

- Led the development of AI models for fast material characterization leveraging state of art transformer model architectures resulted in the reduction of testing time by 90% and cost by 80%. Secured $2M funding from stakeholders.
- As project lead, developed deep Reinforcement Learning agents to optimize complex, dynamic industrial control systems. Attracted $300K funding from industry partners.
- As independent contributor, developed customized MLpipelines to streamline the training of ML models on Supercomputers, leveraged existing CI/CD techniques to deploy ML models to Kubernetes reducing deployment time by 70%.

The University of Alabama High Performance Computing (UAHPC) group Aug 2018 – Dec 2018
Student Assistant (system admin) *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/DL:PyTorch, TensorFlow, Sci-kit Learn, HuggingFace, Reinforcement Learning(PPO, MAPPO/IPPO, Actor-Critics), Transformers, LSTM, Vision transformer, LLMs(Bert/GPT)
Software/MLOps:Python, C++, MLOps, CI/CD, Kubernetes, Flask, Vue.js, MongoDB, Qt, Git
Big Data/Cloud: AWS, GCP, HPC Clusters(Linux), Docker, Hadoop, Spark

Projects

Generative AI: Transformer Model for information retrieval and 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.
Advanced Reinforcement Learning: Multi-Agent PPO:Implemented multi-agent Proximal Policy Optimization (MAPPO) algorithms in PyTorch for cooperative learning environments.
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.