

Yudong Li

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Education

Georgia Institute of Technology

Expected Aug. 2025

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

Altanta, GA

- **Relevant Coursework:** Machine Learning, Graduate Intro to OS, Deep Learning, Artificial Intelligence, Computer Vision, Intro to Info 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 mathematical model and implentation in C for high performance computing and simulation of multi-physics and chemical reaction simulation.

Experience

National Renewable Energy Laboratory

Oct 2019 – Present

Research Engineer/Team Lead

Golden, CO

- Technical stacks: Python, C++, Pytorch, TensorFlow, Sci-kit Learn, Flask, Vue.js, MongoDB, Qt, CI/CD, MLOps
- Leading a cross-functional team in developing and deploying a full stack web application to serve AI models to internal users.
- Leading a small team of software engineering and technicians to develop deep neural network models for the application of material fast characterization. (Pytorch, TensorFlow)
- Leading the development and implementation of physics based models to perform predictive simulation of various advanced biochemical processes .

The University of Alabama High Performance Computing (UAHPC) group

Aug 2018 – Dec 2018

Student Assistant (system admin)

Tuscaloosa, AL

- Worked as a system admin to assist the daily management, troubleshooting, user training for our high performance computer clusters.
- Assisted major upgrade of the system OS of the UAHPC with testing and fixing breaking changes, software migration issues.
- Developed high performance simulation code using C++ to enable various simulation needs.

Projects

Webapp hosted on company local network: scalable multi-user cyclic image annotation for dataset generation

Pytorch, TensorFlow, Flask, Vue.js, MongoDB, CI/CD, Kubernetes, github workflow

Aerial object detection code: vision fundational model assisted learning in arial image detection

Pytorch, Scikit-learn, github

Distributed web file server implementation with C and C++

C, C++, Network programming, IPC, etc.

Simulation code: modeling packed bed system in chemical processing

C++, Python, SQL [<https://doi.org/10.1016/j.cej.2021.128918>]

High performance simulation software: modeling the rotation disc mill

C++, [<https://doi.org/10.1021/acssuschemeng.1c01773>]

Opensource Cluster analysis and visualization code: 3D atomic tomography analysis of solid state materials

Python, Qt - <https://github.com/YudongLi90/APT-ClusterAnalysis.git>