

Lingchao (Ling) Mao

(984) 833-6652 | lmao31@gatech.edu | [in maolingchao](https://www.linkedin.com/in/maolingchao) | <https://lingchm.github.io>

PROFESSIONAL SUMMARY

- High-level technical skills in researching and implementing machine learning models.
- Ability to innovate as seen by 5 first-authored publications and 2 best paper/finalist awards.
- Independent and passionate about creating ML/AI solutions to provide societal and business impact.

EDUCATION

Ph.D. Machine Learning, M.S. Computer Science 2025

Georgia Institute of Technology, GPA 3.85/4.00, Machine Learning for Health and Brain Imaging Lab

B.S. Statistics, B.S. Industrial and Systems Engineering 2020

North Carolina State University, GPA 4.00/4.00

- Selected awards: Caldwell Fellow, Deloitte Startup Innovation Competition (1st), Diamond Hacks (1st)

SELECTED EXPERIENCE

Software Engineer Intern, Machine Learning May - Aug 2024

Meta, Menlo Park, California

- Implemented self-supervised learning techniques to improve the generalizability and robustness of two late-stage ranking models of the Facebook Marketplace Feed recommendation system.
- Mitigated significant computational costs added due to data augmentation through QPS optimization strategies.

Research Assistant Jan 2021 – present

Georgia Institute of Technology, Atlanta | Mayo Clinic, Arizona

- Leveraged state-of-the-art methods in self-supervised/weakly supervised learning, multi-task/multi-modal learning, knowledge distillation, and diffusion to solve application-specific challenges.
- Implemented efficient pipelines performing data cleaning, feature extraction, model training and evaluation.
- Enabled interdisciplinary collaborations with clinicians providing technical analysis and methodological support.
- Technical communication skills leveraged to deliver 14 conference presentations and build 2 GUI demos.

Industrial Engineer Co-op Aug – Dec 2018 and Aug – Dec 2019

Hafele America Co., Archdale, NC

- Enhanced warehouse process efficiencies through data analysis as seen by creating interactive reports that revealed inefficiencies in stock (used daily by 3 warehouses) and deploying scripts that automated 15h/wk of data cleaning.
- Re-built multiple supply chain data tables which efficiently supported the company's platform transition to SAP.

SELECTED PROJECTS

🔗 **Mendel, a LLM Assistant for Bioinformatics Data Analysis** *LLM, Langchain, Chainlit*

- A GPT-powered multi-agent chatbot for automated code generation and execution for single-cell data analysis.

🔗 **MedAssist-Liver: Automated Liver Tumor Analysis** *LLM, PyTorch*

- A web-based tool featured with automated liver and tumor segmentation from CT scans using a customized deep learning model and automated diagnosis report generation using Llama2.

🔗 **MMTrip, Your Personalized Multi-modal Routing Planner** *React, Django, Python*

- A Google Map-like trip planning app featured with multi-modal routing considering 5 modes of transport, trip personalization through preferences and constraints, AI-forecasted trip costs, and POI.
- 1st place, IISE DAIS Mobile/Web App Competition in Montreal, Canada, 2024

TECHNICAL SKILLS

Skills	Machine Learning, Deep Learning, Computer Vision, Recommendation Systems, LLM Chatbots
Languages	Python, R, SQL, SAS (Advanced Programmer), Visual Basic, Java,
Frameworks	PyTorch, Langchain, Spark, Jupyter, Docker, AWS
Interests	I play okay-level tennis, enjoyable-level piano, and am the mom of a lovely tuxedo cat

For publications, see [link](#) to Google Scholar