Isaac Lo

ljzisaac02@gmail.com | linkedin.com/in/iljz | github.com/iljz | iljz.vercel.app

EDUCATION

Georgia Institute of Technology **May 2026**
Master of Science in Computer Science (ML Specialization)
- **Relevant Coursework:** Artificial Intelligence, Machine Learning for Trading, LLM Seminar

University of Illinois at Urbana-Champaign **May 2024**
Bachelor of Science in Mechanical Engineering, Minor in Computer Science
- **Relevant Coursework:** Data Structures and Algorithms, Object Oriented Programming, Numerical Methods, Computational Photography, Data Science in Manufacturing Quality, Signal Processing

EXPERIENCE

Software Engineer Fellow **Jul – Sept 24**
Headstarter AI
- Built **5 full-stack** AI projects using React, Next.js, Firebase, Clerk, and AWS
- Implemented continuous integration and deployment practices using GitHub Actions and Vercel
- Presented technical demos to industry engineers and incorporated feedback to optimize code quality and user experience

Software Engineer Intern **Feb – May 2024**
TekCrafter
- Developed and deployed a **full stack** web application using **React**, **Node.js**, and **RESTful API** integrations resulting in **30%** increased user engagement
- Refactored **10+** features using **JavaScript** frameworks, improving code quality, maintainability, and reducing load times by **15%**
- Collaborated in an **Agile** development environment, participating in stand-ups and sprint planning

PROJECTS

GrubGuide Restaurant Chatbot **GitHub**
- Engineered a **full stack** chatbot application to streamline dining options for UIUC students, deploying to **100+** users
- Designed and deployed a scalable **Retrieval-Augmented Generation** (RAG) system using Pinecone vector database, processing data from **200+** local restaurants
- Optimized language processing by engineering prompt for **90%** accurate chatbot responses

Ultrasonic Metal Welding Quality Data Set Analysis
- Conducted comprehensive analysis of welding characteristics using multiple **machine learning** classification methods, including KNN and random forest
- Achieved **93%** prediction accuracy for weld surface conditions using linear discriminant analysis
- Developed a feature extraction pipeline using pandas and TensorFlow, reducing dimensionality from **20** to **5** key features

GIF Video Face Swap Filter **GitHub**
- Developed a face swap application using **OpenCV** and **Dlib**
- Optimized facial landmark detection, improving accuracy from 80% to **95%**
- Implemented custom algorithms for perspective warping and facial recognition, reducing removed frames by **70%** and enhancing overall video quality

SKILLS

Languages: Python, C++, C, Java, JavaScript, SQL, MATLAB
Frameworks/Technologies: PyTorch, TensorFlow, LangChain, AWS, Keras, OpenCV, pandas, React, Git