Isaac Lo

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EDUCATION

Georgia Institute of Technology **May 2026**
M.S. in Computer Science, Machine Learning Specialization *Atlanta, GA*

University of Illinois at Urbana-Champaign **May 2024**
B.S. in Mechanical Engineering, Minor in Computer Science *Urbana-Champaign, IL*

EXPERIENCE

Software Engineer Fellow **Jul – Sept 24**
Headstarter AI

- Collaborated in 4-person team to build **5** AI applications utilizing **React**, **Node.js**, **Firebase**, and **Vercel**
- Implemented **API**s connecting AI models with web applications and incorporated custom **RAG** pipeline using **OpenAI** and **Pinecone** for virtual assistants

Software Engineer Intern **Jan – June 2024**
TekCrafter

- Led intern team in **full stack** development of web application using **JavaScript**, **HTML,** and **CSS** within **Agile** development process

Engineer Intern **June – Aug 2022**
Balfour Beatty US

- Produced **engineering drawings** covering various components of overhead cantilever system
- Improved efficiency of project workflows by creating and implementing a searchable directory

PROJECTS

GIF Video Face Swap Program

- Built a face swap program implementing face detection with facial landmark identification using **OpenCV** and **Dlib**
- Created algorithms for perspective warping algorithms using homography to enhance video quality

Baby Name Generator using MLP

- Developed a **neural network** using **PyTorch** to generate unique baby names
- Trained on a dataset of **32,000** common names ensuring robust name generation
- Employed gradient-based optimization and fine-tuned model parameters to improve outputs and minimize loss

Image Compositing Tool

- Developed an image compositing program that takes a custom mask of an object in one image and blends it into another image using **Python** and **OpenCV**
- Implemented gradient-domain processing techniques like Poisson blending for convincing outputs

Ultrasonic Metal Welding Quality Data Set Analysis

- Compared **machine learning** classification methods on dataset of weld characteristic to find best method to predict surface condition
- Processed data and extrapolated **5** significant features out of datasets to use in our classification models using **pandas** and **TensorFlow**
- Presented on the use of discriminant analysis which was used to get **93%** prediction accuracy

SKILLS

Languages: Python, C++, C, Java, MATLAB, HTML/CSS, LaTeX
Frameworks/Technologies: PyTorch, TensorFlow, Keras, OpenCV, pandas, React, Git, NumPy