# LUCAS GRAL

(262) 327-5833

# Skills Linux / Unix **Tensorflow & Keras** Git Web Development (HTML, CSS, JS, WASM) **Video Editing Image Editing Digital Music Production**

#### **Programming Languages**

- Proficient
  - C
  - C++
  - Java
  - JavaScript
  - CSS
  - Python
  - Ruby
  - GML
  - Bash / Shell scripting
  - Lua
- Familiar
  - Go
  - Haskell
  - Common Lisp
  - x86 64 Assembly

# **Experience**

#### **Data Scholar**

Direct Supply | Jul 2022 - present

- Tasked with creating a reverse-image-search project for Direct Supply products.
- Exploring and adapting various AI technologies to pursue the task.
- Implemented an autoencoder for Direct Supply product images. This project was an integral part of the reverse-image-search model.
- Applied NLP models to Direct Supply product descriptions. This allows us to include text in the product search.

#### **Education Coordinator**

MSOE AI Club | Feb 2022 - present

- Includes managing the activities and plans of the club
- Help manage and add to the club's website: <u>msoe-</u> maic.com
- As "Education Coordinator," my specific task is to plan and create interactive "workshops" for some weekly club meetings. "Workshops" are interactive programming projects that teach an Al topic.

### **Education**

#### Milwaukee School of Engineering

Computer Science | 2021 – 2025 (planned) GPA 3.87

## **Projects**

#### **AI Music Generation Research**

Oct 2021 – present

- Being done via a Research-Team in the MSOE Al Club.
- Explore and implement AI models to generate new music from existing songs.
- Working with MIDI data.
- Published a MICS paper: <a href="mailto:arxiv.org/abs/2203.12105">arxiv.org/abs/2203.12105</a>