# Rowan Torbitzky-Lane

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#### Skills

• PyTorch

YOLO

• C++

• Rust

• Docker

• HuggingFace

• OpenCV

• Godot

• Evolutionary Computing

• SQL

MATLAB

• Linux

• CUDA

• Anaconda

• Haskell

# Experience

#### **NSF REU Program**

Missouri University of Science and Technology

• Research Bi-Directional LLMs to Correct Errors in Genome Reads

- Analyze Genome Sequences left→right and right→left together

• Developed with HuggingFace library to interact with Models

• Interact with Campus HPC and CUDA for Training

- Execute Slurm Scripts on said HPC

• Clean text data with Scikit-learn and Scikit-bio

# Undergraduate Research Assistant

Center for Intelligent Infrastructure

• Perform Annotations for Image Segmentation Convolutional Neural Networks

• Calculate Optical Flow with MATLAB and C++

• Applied OpenCV Optical Flow Capabilities to Videos

#### Data Science Co-Op

Hunter Engineering Company

January 2022 - August 2022

May 2024 - October 2024

May 2023 - October 2023

Rolla, MO

Rolla, MO

Bridgeton, MO

• Train Convolutional Neural Networks with YOLO and PyTorch

- Train Classification Models to detect if a car is too close to cameras and remove from training data
  - \* Achieved mAP of 96%
  - \* Resulted in a 10% increase of annotation efficiency
- Train Segmentation Models to distinguish between NA and European license plates
  - \* Achieved mAP of 97%
- Containerize Models inside Docker

#### Personal Projects

#### Self-Hosted Linux Server

January 2023 - Present

• Utilize CUDA for Accelerated Model Training

• Construct a bird detection AI

- Achieved mAP of 94%
- Annotate Images via Label Studio
- Fine-Tune Local LLMs
- Assemble Anaconda Training Environments

## Education

## Missouri University of Science and Technology

B.S. Computer Science, with a Minor in Mathematics

Summa Cum Laude

December 2024 GPA: 3.80

Rolla, MO

#### **Invited Talks**

Genetic Programming in Python @ PySTL https://www.youtube.com/watch?v=ZzYi j2IYuY

September 18th, 2025