

# Rowan Torbitzky-Lane

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## Education

B.S. Computer Science - Minor in Applied Mathematics - GPA: 3.80

December 2024

## Skills

- PyTorch
- Python
- C++
- Rust
- Docker
- HuggingFace
- Django
- Godot
- Evolutionary Computing
- SQL
- MATLAB
- Linux
- CUDA
- Anaconda
- Haskell
- YOLO
- Firewallld
- Numpy
- AI
- Pandas
- Slurm
- LaTeX
- Nix
- Clojure

## Experience

**NSF Research Assistant** - *Missouri University of Science and Technology*

May 2024 - October 2024

- Train novel, bi-directional LLMs on Genome Sequences to correct errors in reads
- Clean and analyze textual data with Scikit-learn and Scikit-bio
- Incorporate huggingface library for model testing

**Research Assistant** - *Center for Intelligent Infrastructure*

May 2023 - October 2023

- Calculate Optical Flow with MATLAB and C++ utilizing Slurm on campus HPC
- Coordinate Web Requests with Django to interact with internal PostgreSQL server
- Improve frontend with Typescript, such as adding video upload capability
- Extract image features using OpenCV such as utilizing optical flow to predict annotations in subsequent video frames
- Perform Annotations for image segmentation Convolutional Neural Networks

**Data Science Co-Op** - *Hunter Engineering Company*

January 2022 - August 2022

- Achieve mAP50-95 of 97% with YOLO and PyTorch in license plate recognition problems
- Achieve Precision of 96% via timm's EfficientNet V2 on classifying bad data, resulting in an 10% increase in annotation efficiency
- Innovate data pipeline by automating our data downloading process, increasing efficiency by 5%
- Design and containerize APIs with FastAPI and Flask within Docker, used to create endpoints within Azure
- Leverage Pandas and Microsoft SQL in data processing pipelines
- Implement syntax formatting actions into internal Azure DevOps git repository ensuring up to par formatting
- Utilize Excel for data annotation involving writing macros to automate data exportation
- Transition to storing data in AWS S3 Bucket Storage

## Personal Projects

**Self-Hosted Linux Server** - *SQL, YOLO, Docker, Firewallld, Git, Nginx, CUDA*

January 2023 - Present

- Train bird detection Convolutional Neural Networks
- Host game servers to enjoy with friends
- Troubleshoot problems when pointing domain name A records to proper IP address while ensuring router sends packets to correct LAN address

**Rust Genetic Programming Framework** - *Polars, rust\_decimal*

March 2025 - Present

- Perform pre-processing on Time Series Data
- Utilize test driven development philosophy involving writing unit tests
- Write declarative and procedural macros for reduced boilerplate
- Utilize rust\_decimal's floating point precision for increased accuracy

## Invited Talks

*Genetic Programming in Python @ PySTL* [https://www.youtube.com/watch?v=ZzYi\\_j2IYuY](https://www.youtube.com/watch?v=ZzYi_j2IYuY)

September 18th, 2025

*Actix Web Framework @ STL Rust* coming soon

December 4th, 2025

## Extracurricular Activities

- Sigma Chi - Annotator - Composed notes at chapter meetings and ran philanthropy events
- Kappa Kappa Psi - Treasurer - Track chapter spending and organize semesterly band barbecue
- Climbing Club - Senior Member - Organize weekly trips and track signups, train new members on proper safety techniques