Conner Groth

720-899-6056 | connergroth@gmail.com | connergroth.me | linkedin.com/in/connergroth | github.com/connergroth

EDUCATION

University of Colorado Boulder — Boulder, CO

B.S Computer Science — *Expected: 2027*

Relevant Coursework: Data Structures & Algorithms, Software Development Methods, Computer Systems, Intro to Computing.

PROJECTS

EcoVision | *Next.js, FastAPI, React, Python, Tailwind CSS, TensorFlow, PyTorch, Firebase* — Mar 2025

- Developed an AI-powered recycling assistant that utilizes computer vision to identify recyclable items, providing users with proper disposal guidance and tracking their environmental impact.
- Engineered a custom YOLOv8 model optimized for AMD's Neural Processing Unit (NPU), achieving real-time object detection with reduced power consumption.
- Implemented a microservices architecture:
  - **Frontend:** Built with Next.js and React, featuring responsive design using Tailwind CSS and state management with React Hooks.
  - **Backend:** Developed using FastAPI in Python, integrating Firebase Authentication for user management and Firestore for data storage.
  - **AI Integration:** Leveraged TensorFlow and PyTorch for model training and inference, incorporating ChatGPT for enhanced item information.
- Conducted extensive model training and fine-tuning using datasets from Roboflow, enhancing detection accuracy for various recyclable materials.
- Designed engaging user interfaces that display real-time detection results, environmental impact statistics, and educational content to promote sustainable practices.

Strim - Web App for Running Activity Editing | *Python, HTML, CSS, JavaScript, Strava API* — Feb 2025

- Developed a web application that processes and modifies GPS-tracked fitness data.
- Implemented file parsing and data manipulation to extract and edit activity timestamps.
- Integrated Strava API to support user authentication and reuploading of modified activities.
- Deployed on Vercel, ensuring scalability and accessibility for users.

Sonance – Music Recommendation Engine | *Python, FastAPI, PostgreSQL, Redis* — Jan 2025 - Current

- Developing a machine learning-powered recommendation system integrating Spotify, Last.fm, and Albumoftheyear data to generate accurate and personalized recommendations.
- Optimizing data retrieval and model performance using Docker and PostgreSQL.
- Managing large datasets efficiently with SQL and Redis caching.

TECHNICAL SKILLS

Languages: Python, C++, C, JavaScript, HTML, CSS, Assembly

AI & Data: TensorFlow, PyTorch, PostgreSQL, Redis

Web & Backend: FastAPI, React, Docker, AWS

APIs & Scraping: Strava API, Last.fm API, Spotify API, CloudScraper, BeautifulSoup

EXPERIENCE

Target — Superior, CO

Stocking and Fulfillment — *July 2024 - Present*

- Restocked shelves, fulfilled customer orders, and maintained a fast-paced workflow.
- Enhanced efficiency and teamwork through coordinated tasks and problem-solving.

Birdhouse LLC — Erie, CO

Line Cook — *Sep 2021 - Aug 2023*

- Prepared meals efficiently while multitasking in a high-pressure kitchen.
- Collaborated with kitchen staff to optimize workflow and meet customer demands.