Collin Drake

cldrake01 | collinlindendrake@gmail.com | +1 (385) 404-5961

Work Experience

Machine Learning Intern at Grip Places July 2023 - December 2023

- Built an oversampling and preprocessing pipeline using OpenCV and PyTorch.
- Improved facial recognition systems using Facebook's FAISS library.
- Enhanced the accuracy of our age and gender classification model by 15%.
- Filtered and classified a dataset of 120,000 faces for model training.

Clerk at PostNet May 2023 - August 2023

- Provided customer service and managed transactions.
- Assisted in daily operations, including inventory management.

Projects

Co-leadership of a Tech Help Volunteering Organization CDIL

My interview with the Boulder Daily Camera con be found here: Peak to Peak Charter students offer tech help to seniors – Boulder Daily Camera. I serve as a volunteer and outreach coordinator for Connect Digital Inclusion Labs, a volunteering organization that assists people of all ages with their tech problems. We've served the community in several places, including the Lafayette Public Library, EFFA, senior assisted living centers, and disability centers in collaboration with the Arc of Weld County. Initially, we believed that seniors would be most affected by the widening digital divide, but we've found that it affects people of a much wider age range; many of our learners are as young as 45, with the primary age range being 55-70.

Facial Recognition System Improvement GitHub

Led the development of a facial recognition system using Python, OpenCV, and PyTorch. Enhanced accuracy by implementing advanced preprocessing techniques and leveraging the FAISS library for efficient similarity search.

Education

2021 - present **Peak to Peak Charter School** (GPA: 3.87)

Relevant Coursework: Machine Learning, Data Structures & Algorithms
Extracurricular Activities: Data Science Seminar Founder, Computer Science Honors Society Leader, Robotics Club Member, Math Club Member

Publications

Collin Drake, Jack Cerullo (Mar. 2024). "Variance-Aware Loss: Addressing Underfitting in Transformer-Based Time Series Forecasting". In: *GitHub*. URL: https://github.com/cldrake01/sibyl/tree/main/paper.