

Cade Gordon

Research Assistant

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Curious machine learning researcher with 2 years of academic experience. Well versed in implementing complex models, scaling training to larger compute setups, and academic writing.

Education

UC Berkeley

B.A. in Computer Science

09/2021-05/2024

Work Experience

Research Collaborator

open_CLIP - Forschungszentrum Jülich, University of Washington, & UC Berkeley

09/2021 - Present

- Training models on world's 8th fastest \$40M+ supercomputer: JUWELS Booster
- Implementing training protocols for multi-node contrastive learning
- Open sourcing deep learning models on datasets of 400M+ samples

Research Assistant

University of Illinois at Chicago

06/2019 - 08/2021

- Designed experiments to properly test hypotheses surrounding model performance
- Implemented intricate papers and new reproducible experimental setups
- Coordinated my own research project and assisted a Ph.D. student with his own
- Achieved a new State-of-the-Art in unconditional 64x64 pixel video generation

Publications

C. Gordon and N. Parde. Latent Neural Differential Equations for Video Generation. In the Proceedings of the Preregistration Workshop on Machine Learning at NeurIPS 2020. Online, December 11, 2020.

Personal Projects

[Developed Course Materials for Stanford's CS236G and the Coursera GAN](#)

[Specialization](#)

- Summarized and compiled existing literature on video generation into a teachable form
- Produced material shared with the Stanford 236G class and a Coursera Course with 28,000+ students

[train-CLIP: A Scalable Training Framework for CLIP in PyTorch Lightning](#)

- With the help of PyTorch lightning I developed an easy to use one-to-one implementation of the original paper's training routine
- Sharded model computation over multiple clusters and per-machine devices
- Trained distributed models with nearly half-a-billion parameters on GPU nodes from EleutherAI

[Style Transfer with Contrastive Language-Image Pre-training \(CLIP\)](#)

- Fused the work of Gatys et. al's style transfer and CLIP's linguistic grounding to use words to affect artistic style
- Optimized per-pixel values to maximize an inner product representing image to text similarity, in turn transferring style