

Adam Sun

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Junior with extensive prior experience in machine learning and computer vision passionate about using AI for impactful applications.

EDUCATION

STANFORD UNIVERSITY

Stanford, CA
Sep 2021 - June 2025
GPA: 4.01/4.0

B.S. Computer Science, Artificial Intelligence

Relevant Coursework (* denotes graduate level): Computer Graphics in the Era of AI (CS348I), Deep Learning for Computer Vision* (CS 231N), Natural Language Processing with Deep Learning* (CS 224N), Design and Analysis of Algorithms (CS 161), Artificial Intelligence: Principles and Techniques* (CS 221), Continuous Mathematical Methods for Machine Learning* (CS 205L), Decision Making Under Uncertainty* (CS 238), History of NLP* (CS324H), Computational Methods for Biomedical Image Analysis and Interpretation* (CS 235), Operating Systems Principles (CS 111), Computer Organization & Systems (CS 107), Linear Algebra, Multivariable Calculus, and Modern Applications (MATH 51), Introduction to Computer Graphics (CS 148), Introduction to Probability for Computer Scientists (CS 109), Mathematical Foundations of Computing (CS 103), Programming Abstractions in C++ (CS 106B), ENGR 103 (Public Speaking)

PUBLICATIONS

Rendering Humans from Object-Occluded Monocular Videos.

Tiange Xiang, Adam Sun, Jiajun Wu, Ehsan Adeli, Li Fei-Fei. *IEEE/CVF International Conference on Computer Vision (ICCV)*, 2023.

Paper: <https://arxiv.org/pdf/2308.04622.pdf>

Project Page: <https://cs.stanford.edu/~xtiange/projects/occnerv/>

Wild2Avatar: Rendering Humans Behind Occlusions.

Tiange Xiang, Adam Sun, Scott Delp, Kazuki Kozuka, Li Fei-Fei, Ehsan Adeli. *arXiv preprint*.

Paper: <https://arxiv.org/pdf/2401.00431.pdf>

Project Page: <https://cs.stanford.edu/~xtiange/projects/wild2avatar/#>

WORK EXPERIENCE

STANFORD ARTIFICIAL INTELLIGENCE LAB (SAIL)

Stanford, CA
Sep 2022 - Current

Student Researcher

- Conducts medical computer vision research in the Stanford Vision and Learning Lab (SVL)'s Partnership in AI-Assisted Care team (PAC) under Professors Fei-Fei Li and Ehsan Adeli.
- Collaborates with graduate students on projects involving scene understanding with neural radiance fields, few-shot activity recognition, natural language processing, and multimodal learning. Publication to ICCV 2023 as second author.

WHITERABBIT.AI

Redwood City, CA
Jun 2023 – Sep 2023

Research Scientist Intern

- Applied time-space transformer attention architecture for cancer diagnosis on tomosynthesis mammograms.
- Implemented semi-supervised learning algorithms to incorporate unlabeled data.

WELLS FARGO

Charlotte, NC
Jun 2022 – Sep 2022

Quantitative Analytics Intern

- Constructed detailed documentation for PiML, a toolbox for training, validating, interpreting and comparing machine learning models.
- Conducted detailed analyses to showcase advantages of inherently interpretable models over post-hoc explainability methods (paper [here](#)).

FORD MOTOR COMPANY

Palo Alto, CA
Jun 2021 – Aug 2021

Research and Development Intern

- Designed, prototyped, tuned, and tested LSTM-based neural network for vehicle trajectory prediction.
- Preprocessed raw sensor data into intuitive vehicle trajectory information dataset with 800,000 unique vehicle trajectories.

PROJECTS

Automatic Speech Recognition Error Correction on ICU Clinical Narration Dataset (CS224N Final Project)

Mar 2023

- Applied a non-autoregressive error correction approach to reduce the word error rate of OpenAI's Whisper on clinical narration by 16%.
- Implemented text augmentation pipeline for pretraining the correction model.

Linear Probing for Few-Shot Fine-Grained Activity Recognition (In Review)

Nov 2022

- Proposed and implemented a linear probing model to classify visually and semantically similar activities based on visual embeddings.
- Model performed up to par with more complex visual language model fine-tuning methods on few-shot activity recognition datasets.

Medical Image Dataset Rebalancing with Conditional Deep Convolutional Generative Adversarial Networks (CS231N Final Project)

Jun 2022

- Explored Conditional Deep Convolutional Generative Adversarial Networks (cDCGANs) for generating new synthetic data to oversample the minority class of an imbalanced dataset of pneumonia images.
- Demonstrated that a model trained on data rebalanced with cDCGANs outperformed the same model trained on a dataset rebalanced with more common methods.

SKILLS

Technical Skills: Deep Learning, Computer Vision, Machine Learning, Research

Programming Languages: Python (PyTorch, TensorFlow, Pandas, NumPy), C++, C, Java

Languages: Fluent in English and Chinese

Awards: ISEF Finalist 2020 (Canceled due to COVID), National Merit Finalist