

Anthony Zhang

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EDUCATION

University of California, Berkeley

Berkeley, CA

MS in Electrical Engineering & Computer Science, Advisor: Angjoo Kanazawa

Aug 2025 – May 2026

University of California, Berkeley

Berkeley, CA

BA in Computer Science, BA in Applied Mathematics, GPA: 3.8

Aug 2020 – Jan 2025

- Relevant Coursework: DS&A, Operating Systems, Computer Vision, Computer Graphics, Machine Learning

EXPERIENCE

Berkeley AI Research - Undergraduate Researcher (under Prof. Kanazawa) Jan 2024 – Present

- Developer for Nerfstudio, an open-source framework to build 3D reconstruction methods with +9k Github stars.
- Revamped Nerfstudio's dataloading with multiple parallel workers, optimized disk reads, supported prefetching, and removed unnecessary memory allocations to hasten NeRF train times by over 55% from 54 minutes to 23 minutes.
- Developed multi-camera support for Meta's Aria virtual reality glasses to create neural renders from all 3 cameras.
- Implemented spherical harmonics for Gaussian Splatting within GLSL vertex shaders and Three.js using efficient texture buffers and recurrence calculations, enabling complex view-dependent lighting effects (reflections, highlights, indirect lighting, etc.) for model visualization while achieving 30+ FPS with 1M+ gaussians.

Square - Software Engineer Intern | San Francisco, CA

Jun 2023 – Aug 2023

- Developed a gRPC admin service using Go to deliver real-time debugging information from a low-latency DynamoDB for on-call engineers, resulting in a 50% reduction in overall debugging time for critical CRM issues.
- Migrated an on-premise monolithic load testing service to the cloud with resources provisioned by Terraform.
- Leveraged AWS Elastic Container Registry to deploy Docker images to a distributed K8s infrastructure.
- Wrote design document to parallelize load tests across K8 pods, allowing benchmarks to 10x their testing QPS.

Collective Health - Software Engineer Intern | San Mateo, CA

Jun 2022 – Sep 2022

- Developed SQL queries for Postgres relational databases in Databricks and used PySpark to process and clean various health insurance enrollment statistics from the returned tables for over 300,000 members.
- Built REST API endpoints using Spring Boot to calculate various health metrics based off the tables returned by these queries and routed these HTTP requests into a JSON server to be displayed on the frontend.
- Wrote integration and unit tests of 90% coverage with Mockito to robustify the business logic against exceptions.

UC Berkeley EECS - Teaching Assistant | Berkeley, CA

Jun 2022 – May 2024

- Created material, graded homework, and developed exams for discrete math, probability theory, and data science.

PUBLICATIONS

Reconstructing People, Places, and Cameras

CVPR 2025

L. Müller, H. Choi*, A. Zhang, B. Yi, J. Malik, A. Kanazawa*

(Highlight)

- Evaluated baseline comparisons against Uncalipose on EgoHuman and EgoExo4D datasets where RPPC had significant improvements in scene and human pose estimation (3.51m to 1.04m and 2.9m to 0.56m respectively).
- Implemented clustering algorithm using a person's re-ID features to establish correspondences across viewpoints.

Predict-Optimize-Distill: A Self-Improving Cycle for 4D Object Understanding

ICCV 2025

M. Wu, H. Huang, J. Kerr, C.M. Kim, A. Zhang, B. Yi, A. Kanazawa

(Accepted)

- POD is a self-improving framework that creates accurate 4D object models by iteratively refining pose predictions through a feed forward neural network, optimization, and synthetic data generation from monocular videos.
- Implemented contrastive loss frame matching for quasi-multiview loss to improve 4D reconstruction.

VideoMimic: Visual Imitation Enables Contextual Humanoid Control

CoRL 2025

A. Allshire, H. Choi*, J. Zhang*, D. McAllister*, A. Zhang, C.M. Kim, T. Darrell, P. Abbeel, J. Malik, A. Kanazawa*

(Oral)

- VideoMimic is a real-to-sim-to-real pipeline that converts monocular videos into transferable humanoid skills, letting robots learn context-aware behaviors (terrain-traversing, climbing, sitting) in a single policy.
- Improved scene meshification quality and speed; implemented multihuman reconstruction and retargeting.

TECHNICAL SKILLS

Languages: Python, Java, GoLang, SQL, C, C++, HTML/CSS, JavaScript, Typescript

Libraries and Frameworks: Spring Boot, gRPC, React, Pytorch, Mockito, JUnit, OpenGL, Three.js

Developer Tools: Git, AWS Cloud, Node.js, Postman, Docker, Kubernetes, Terraform, Logisim