# **Arthur Kefan Chen**

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#### **EDUCATION**

Brown University, Ph.D. candidate in Computer Science

2022 - 2026

- Advisor: Srinath Sridhar
- Research focus: 3D Vision, Diffusion GenAI, LLM/LVM, Digital Human, Embodied AI, VR/XR.

University of Toronto, Bachelor in Electrical Engineering

2014 - 2018

#### **SKILLS**

Python, C++, C, Pytorch, Tensorflow, LLM/LVM, Large-scale ML training, Research

## INDUSTRY EXPERIENCE

#### Waymo (Google Self-driving), Research Intern

Jun 2025 – Aug 2025

Design multi-modal 3D perception models for autonomous driving leveraging LLM/LVMs.

Meta AI, Researcher

Jun 2024 – Mar 2025

• Research interactive 3D avatars using Gaussian Splatting for realistic digital human and VR/XR.

Meta Reality Labs, Research Scientist Intern

Jun 2023 – Dec 2023

• Research large image and video diffusion generative models for dexterous hand generation.

**Pinterest**, Machine Learning Engineer

Jan 2022 - Sep 2022

Develop ML models to scalably extract metadata for shopping content data mining.

Gatik AI, Perception Engineer

Sep 2020 – Dec 2021

• Lead research and development of multimodal perception and sensor fusion for autonomous driving.

#### Google Research, AI Resident

Jun 2018 - Aug 2020

Research 3D computer vision, camera pose estimation, and SO(3) representation learning.

**NVIDIA**, Research Intern

May 2017 – Aug 2017

Develop Isaac virtual simulation for robotic training demonstrated at SIGGRAPH 2017. (News)

#### **PUBLICATION**

- [1] **K Chen**, S Mohan, J Theiss, S Oprea, S Sridhar, A Prakash, "InteractAvatar: Modeling Hand-Face Interaction in Photorealistic Avatars with Deformable Gaussians," *under review*, 2025.
- [2] **K Chen**, C Min, L Zhang, S Hampali, C Keskin, S Sridhar, "FoundHand: Large-Scale Domain-Specific Learning for Controllable Hand Image Generation," *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2025. (Highlight, top 2.98% of submissions.)
- [3] A Rai, D Wang, M Jain, N Sarafianos, **K Chen**, S Sridhar, A Prakash, "UVGS: Reimagining Unstructured 3D Gaussian Splatting using UV Mapping," *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2025.
- [4] C Pokhariya, I Shah, A Xing, Z Li, **K Chen**, A Sharma, S Sridhar, "MANUS: Markerless Grasp Capture using Articulated 3D Gaussians," *Conference on Computer Vision and Pattern Recognition* (*CVPR*), 2024.
- [5] C Lu, P Zhou, A Xing, C Pokhariya, A Dey, I Shah, R Mavidipalli, D Hu, A Comport, K Chen, S Sridhar, "DiVa-360: The Dynamic Visual Dataset for Immersive Neural Fields," *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2024. (Highlight, top 2.81% of submissions.)
- [6] **K Chen**, Noah Snavely, Ameesh Makadia, "Wide-Baseline Relative Camera Pose Estimation with Directional Learning," *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.
- [7] Jake Levinson, Carlos Esteves, **K Chen**, Noah Snavely, Angjoo Kanazawa, Afshin Rostamizadeh, Ameesh Makadia, "An Analysis of SVD for Deep Rotation Estimation," *Conference on Neural Information Processing Systems (NeurIPS)*, 2020.

### ACADEMIC SERVICES

Serve as reviewer for top AI conferences, CVPR, ICCV, ECCV, NeurIPS, ICML.