

Kefan Chen

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EDUCATION	Brown University , Ph.D. student in Computer Science ▪ Research focus: 3D Computer Vision, Generative AI University of Toronto , Bachelor in Electrical Engineering	2022 – 2027 2014 – 2018
SKILLS	Python, C++, C, Pytorch, Tensorflow, Computer Vision, Deep Learning, Research	
INDUSTRY EXPERIENCE	Meta , Research Scientist Intern ▪ Research 3D diffusion model and neural fields for hand generative modeling. ▪ Direct a research project and submit a first-author paper to CVPR 2024. Pinterest , Machine Learning Engineer ▪ Develop ML models to extract various attributes of interest from the shopping websites for recommendation and other downstream applications. Gatik AI , Software Engineer ▪ Research and develop long-range multimodal perception and sensor fusion for autonomous delivery. ▪ Coordinate and manage long-term research collaboration with universities and academic labs. Google Research , AI Resident ▪ Conduct research on 3D computer vision and geometric representation learning for computer vision. ▪ Published a first-authored paper at CVPR and co-authored paper at NeurIPS. ▪ Developed a novel algorithm for camera pose estimation that achieves state-of-the-art performance. ▪ Designed various models and implemented large-scale distributed training in Tensorflow. NVIDIA , Research Intern ▪ Conduct research on deep learning in animation and pose estimation for robotics using domain transfer. ▪ Designed and built a robotic perception model with only synthetic data to play board games and demonstrated the demo at ACM SIGGRAPH 2017. (Video link)	Jun 2023 – Dec 2023 Jan 2022 – Sep 2022 Sep 2020 – Dec 2021 Jun 2018 – Aug 2020 May 2017 – Aug 2017
PUBLICATION	<ol style="list-style-type: none">[1] C Pokhariya, I Shah, A Xing, Z Li, K Chen, A Sharma, S Sridhar, “MANUS: Markerless Grasp Capture using Articulated 3D Gaussians,” <i>Conference on Computer Vision and Pattern Recognition (CVPR)</i>, 2024.[2] 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,” <i>Conference on Computer Vision and Pattern Recognition (CVPR)</i>, 2024. Highlight (11.9%)[3] Kefan Chen, Noah Snavely, Ameesh Makadia, “Wide-Baseline Relative Camera Pose Estimation with Directional Learning,” <i>Conference on Computer Vision and Pattern Recognition (CVPR)</i>, 2021.[4] Jake Levinson, Carlos Esteves, Kefan Chen, Noah Snavely, Angjoo Kanazawa, Afshin Rostamizadeh, Ameesh Makadia, “An Analysis of SVD for Deep Rotation Estimation,” <i>Conference on Neural Information Processing Systems (NeurIPS)</i>, 2020.	
ACADEMIC EXPERIENCE	Brown Interactive 3D Vision & Learning Lab , PhD Researcher ▪ Research on 3D computer vision and generative AI, diffusion model, and neural field. UofT Machine Learning Group , Research Assistant ▪ Researched on Motion Generation using Adversarial Training supervised by Prof. Sanja Fidler. ▪ Researched on Homography Estimation for Sports Analytics, supervised by Prof. Raquel Urtasun.	Sep 2022 – Current Feb 2017 – May 2018