ctalegaonkar@ucsd.edu

Chinmay Talegaonkar

Website | LinkedIn | GitHub | Google Scholar

Education

University of California, San Diego — *San Diego, CA*
Ph.D. in Electrical and Computer Engineering | GPA: 4.0/4.0 — *Sept. 2022 - Present*
Advisor: Prof. Nicholas Antipa

University of California, Los Angeles — *Los Angeles, CA*
M.S. in Electrical and Computer Engineering | GPA: 4.0/4.0 — *2019 - 2021*
Advisor: Prof. Achuta Kadambi

Indian Institute of Technology, Bombay — *Mumbai, India*
B.Tech. in Electrical Engineering; Minor in Computer Science | GPA: 9.07/10.0 — *2015 - 2019*
Advisor: Prof. Ajit Rajwade

Work Experience

Meta Reality Labs — *Paris, France*
Research Intern — *June 2026 - Present*
Advisors: Tom Monnier and Andrea Vedaldi
Fine-tuned a 3D object generation model for scene-level mesh generation. Implemented a novel attention mechanism for conditioning 3D diffusion models on high-resolution point clouds.

Amazon Lab126 — *Sunnyvale, CA*
Research Intern — *June 2025 - Sept. 2025*
Proposed a floor-plan-preserving 3D point-cloud augmentation pipeline to generate 120K labeled houses. Fine-tuned a 3D VLM; combining Qwen-2.5 (0.5B) with a point-cloud encoder, improving floor plan estimation mean F1 by 3-4×.

Qualcomm AI — *San Diego, CA*
Research Intern — *June 2023 - Sept. 2023*
Developed a memory-efficient, generalizable NeRF-like method for creating human avatars from monocular videos using a point-based 3D representation, reducing GPU memory by 10× and training time by 100×.

Intrinsic.ai (A robotics group at Google) — *Mountain View, CA*
Senior Deep Learning Engineer — *May 2021 - Sept. 2022*
Joined Intrinsic.ai through its acquisition of Akasha Imaging in May 2022.
Developed a multi-view pose estimation pipeline with over 99% reliability and sub-millimeter accuracy. Built synthetic data generation pipelines for segmentation and keypoint estimation models. Developed an HDR fusion algorithm to improve pose estimation under difficult lighting conditions.

NVIDIA — *Santa Clara, CA*
Deep Learning Software Intern — *June 2020 - Sept. 2020*
Optimized CUDA kernels for 2D/3D convolutions in CNNs, achieving a 30% speedup during training.

Selected Publications

Single-Shot HDR via a Video Diffusion Prior
Chinmay Talegaonkar, Jinshi He, Nicholas Antipa
NeurIPS, 2026. Paper | Code

Repurposing Marigold for Zero-Shot Metric Depth Estimation via Defocus Blur Cues
Chinmay Talegaonkar, Nikhil G. Suresh, Zachary Novack, Yash Belhe, Priyanka Nagasamudra, Nicholas Antipa
NeurIPS, 2025 *(Spotlight)*. Paper | Code

Volumetrically Consistent 3D Gaussian Rasterization
Chinmay Talegaonkar, Yash Belhe, Ravi Ramamoorthi, Nicholas Antipa
CVPR, 2025 *(Spotlight)*. Paper | Code

RnGCam: High-speed video from rolling and global shutter measurements
Kevin Tandi, Xiang Dai, ***Chinmay Talegaonkar***, Gal Mishne, Nicholas Antipa
ICCV, 2025. Paper

Machine Learning-Based Generation of Three-Dimensional Models
Chinmay Talegaonkar, Peng Liu, Lei Wang, Junkang Zhang, Ning Bi

U.S. Patent 12,573,140, Qualcomm, 2026. Patent

Pose Estimation of Buried Deep-Sea Objects using 3D Deep Learning Models
Chinmay Talegaonkar*, Jerry Yan*, Nicholas Antipa, Eric Terrill, Sophia Merrifield
OCEANS Conference and Expositions, 2024. Paper | Code

PoseIDON: Pose Estimation with Foundation Model Features for Marine Burial Mapping
Jerry Yan, ***Chinmay Talegaonkar***, Nicholas Antipa, Eric Terrill, Sophia Merrifield
ISPRS Journal of Photogrammetry and Remote Sensing, 2026. Paper

Visual Physics: Discovering Physical Laws from Videos
Chinmay Talegaonkar*, Pradyumna Chari*, Yunhao Ba*, Achuta Kadambi
ICCP 2020 Poster, CVPR 2020 Tutorial. arXiv Preprint.
Journal Version: *On learning mechanical laws of motion from video using neural networks*, IEEE Access, 2023. Paper

Compressive Phase Retrieval Under Poisson Noise
Chinmay Talegaonkar, Parthasarthi Khirwadkar, Ajit Rajwade
IEEE International Conference on Image Processing (ICIP), 2019. Paper

Mentorship

Ayush Jamdar (MS, UCSD → OpenAI)
Worked with Ayush on forward-gradient-based inference-time optimization of video diffusion models.

Jerry Yan (MS, UCSD → CS PhD at Purdue)
Mentored on underwater pose estimation research, resulting in a conference paper at *OCEANS 2024* and an ISPRS journal paper.

Nikhil G. Suresh (MS, UCSD → Qualcomm)
Supervised real-data collection for a monocular depth estimation project, resulting in a NeurIPS publication.

Miscellaneous

Reviewing Service: NeurIPS 2026, CVPR 2026 Workshop, CCTA 2025.
Teaching Assistant: Software Systems Lab (UCLA), Reinforcement Learning (UCLA), Introduction to Computer Vision (UCLA), Computational Imaging (UCSD, 2024–2025).
Music: Acoustic Guitar, CVPR Band (2024, 2025)
Awards: IJSO Silver Medalist (2013)
Service: Treasurer, Graduate Student Volleyball Club, UCSD (2025).

References

Prof. Nicholas Antipa
Assistant Professor, Electrical and Computer Engineering, University of California, San Diego
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Prof. Ravi Ramamoorthi
Ronald L. Graham Professor of Computer Science, University of California, San Diego
Contact: ravir@cs.ucsd.edu

Yash Belhe
Research Scientist, OpenAI
Contact: ybelhe@ucsd.edu

Agastya Kalra
Senior Staff Engineer, Google
Contact: agastya.kalra@gmail.com