

EXPERIENCE

Meshy.ai

Mar 2026 – Present

Researcher — Generative Modeling & ML Systems

- Research generative models for visual media: multimodal conditioning, training, evaluation, and inference.
- Build experimentation and evaluation infrastructure for large-scale generative systems.

Meta Reality Labs

Pittsburgh, PA · Jun 2025 – Feb 2026

Research Engineer — Data for Embodied AI

- Shipped Embody3D: built QA tooling and coordinated annotation of 1.6M videos, curating 500 hours of high-quality motion data adopted by internal training teams.
- Built automated quality-filtering algorithms that removed annotation bottlenecks from the data pipeline.
- Cut keypoint tracking error by 75% with a self-supervised data-generation pipeline.

Adobe Research

San Francisco, CA · Summer 2024

Research Engineer Intern — 3D Foundation Model Training

- Built a pipeline converting synthetic mesh assets into relightable Gaussian splats for 3D foundation model training.
- Wrote custom CUDA kernels replacing spherical harmonics with neural features; scaled to 32 nodes, reducing per-asset processing from 6 minutes to 30 seconds.

Adobe Research

Bangalore, India · Summer 2022

Research Scientist Intern — Explainable Recommendation

- Counterfactual explanations for visual recommender systems via minimal image-embedding perturbations grounded in language with CLIP. Published at WWW 2024; USPTO patent filed.

Subex AI Labs

Bangalore, India · Summer 2021

Machine Learning Intern — Document Understanding

- End-to-end multilingual invoice understanding: table extraction with object detection, field extraction with LayoutLMv2.

EDUCATION

Carnegie Mellon University — MS in Robotics

2023 – 2025 · GPA 4.11/4.0

- Advisor: Prof. Ioannis Gkioulekas. Thesis: SmokeSeer: 3D Gaussian Splatting for Smoke Removal and Scene Reconstruction.
- Coursework: Deep Learning Systems, Learning for 3D Vision, Robot Learning, Physics-based Rendering.

IIT Madras — BTech in Electrical Engineering, Minor in Machine Learning

2019 – 2023 · CGPA 9.24/10

- Coursework: Modern Computer Vision, Machine Learning, Computational Photography.

PUBLICATIONS

SmokeSeer: 3D Gaussian Splatting for Smoke Removal and Scene Reconstruction — Neham Jain, Sebastian Scherer, Ioannis Gkioulekas. [3DV 2026](#).

Counterfactual Explanations of Visual Recommender Systems — Neham Jain, et al. [WWW 2024](#). Patent filed at USPTO.

Embod3D: A Large-scale Multimodal Motion and Behavior Dataset — Meta Reality Labs, 2025.

Towards Realistic Underwater Dataset Generation and Color Restoration — Neham Jain, et al. [arXiv:2211.14821](#).

SELECTED PROJECTS

Needle — Deep Learning Framework

CMU · Fall 2024

- Differentiable-programming library from scratch with C and CUDA backends and NCCL/Gloo distributed training; trained a Llama-3 architecture on OpenWebText across 8×4090 nodes.

RGB-Thermal Sensor Fusion for ADAS

CMU / IIT Madras · 2022 – 2023

- Physics-based aligned RGB/thermal capture; cross-attention architecture super-resolving thermal images with RGB guidance.