

# Vijay Gohil

Machine Learning Engineer

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## Summary

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Machine learning and computer vision engineer working on production perception systems and research in vision interpretability. My recent work spans multiview 3D geometry, pose estimation, object detection, and sparse autoencoders for vision transformers.

## Education

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| <b>MS</b> | <b>New York University</b> , Computer Science<br>• Specialization in machine learning and computer vision. | New York, NY<br>2021 – 2022  |
| <b>BE</b> | <b>Dwarkadas J. Sanghvi College of Engineering</b> , Electrical and Computer Engineering                   | Mumbai, India<br>2016 – 2020 |

## Experience

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| <b>2K Games / Visual Concepts</b> , Machine Learning Engineer                    | <ul style="list-style-type: none"> <li>Build machine learning systems for real-time game production workflows.</li> <li>Work across object detection, pose estimation, multiview geometry, and animation-related tooling.</li> </ul>                              | San Francisco, CA<br>Feb 2023 – present<br>3 years 4 months |
| <b>NYU AI4CE Lab</b> , Visiting Researcher                                       | <ul style="list-style-type: none"> <li>Research on representation learning and interpretability for vision transformers.</li> </ul>   | New York, NY<br>2025 – present<br>1 year                    |
| <b>New York University</b> , Data Science Instructor                             | <ul style="list-style-type: none"> <li>Taught Foundations of Data Science to large graduate and undergraduate cohorts.</li> <li>Covered SQL, Python, data analysis, supervised learning, and model evaluation.</li> </ul>   | New York, NY<br>Sept 2022 – Dec 2022<br>4 months            |
| <b>Grubrrr</b> , Machine Learning Engineer                                       | <ul style="list-style-type: none"> <li>Built a computer-vision self-checkout system for retail environments.</li> <li>Improved model robustness and deployment performance across detection and classification pipelines.</li> </ul>                              | New York, NY<br>May 2022 – Aug 2022<br>4 months             |
| <b>Dwarkadas J. Sanghvi College of Engineering</b> , Machine Learning Researcher | <ul style="list-style-type: none"> <li>Worked on fine-grained plant disease classification with large-scale image datasets.</li> <li>Built preprocessing, augmentation, and hyperparameter search pipelines to improve accuracy and convergence.</li> </ul>       | Mumbai, India<br>Nov 2020 – Feb 2021<br>4 months            |
| <b>Indian Institute of Technology Bombay</b> , Research Engineer                 | <ul style="list-style-type: none"> <li>Developed tooling for image annotation, feature extraction, and vehicle classification experiments.</li> <li>Built cross-platform workflows to move models and datasets between MATLAB and Python environments.</li> </ul> | Mumbai, India<br>June 2019 – Aug 2019<br>3 months           |

## Publications

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### Scene Change Detection with Vision-Language Representation Learning

Apr 2026

Vijay Gohil

[arxiv.org/abs/2604.11402](https://arxiv.org/abs/2604.11402) (arXiv)

### Feature Fusion and Dataset Generator for Vehicle Classification and Ranging

Jan 2019

Vijay Gohil

[ieeexplore.ieee.org/document/9036795](https://ieeexplore.ieee.org/document/9036795) (2019 International Conference on Advances in Computing, Communication and Control)

## Skills

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**Machine Learning:** PyTorch, Representation learning, Model evaluation, Training pipelines

**Computer Vision:** Object detection, Pose estimation, Multiview geometry, 3D reconstruction

**Engineering:** Python, Experiment tooling, Data pipelines, Production ML systems

## Interests

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**Research Interests:** Mechanistic interpretability for vision models, Sparse autoencoders, Multicamera 3D understanding, Representation learning

## Invited Talks

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**Ai4 2025:** Invited speaker on AI in practice and industry applications at Ai4 2025 in Las Vegas.