Arnav Devalapally

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EDUCATION

University of Michigan **Ann Arbor, MI**
M.S. in Computer Science and Engineering *Dec 2026*
- GPA: 4.0/4.0
- Coursework: Advanced Computer Vision, Robot Kinematics & Dynamics, Control Systems, Microarchitecture

K L University **Hyderabad, India**
B.Tech (Honors) in Artificial Intelligence and Data Science *May 2025*
- GPA: 9.8/10.0 (Silver Medalist)

PUBLICATIONS

- **Devalapally, A.**, Valluri, G., A Simple Machine Unlearning Approach Using Elastic Weight Consolidation, International Conference on Recent Trends in AI Enabled Technologies, 2023, doi.org/10.1007/978-3-031-59114-3_1
- **Devalapally, A.**, Jain, P., Srinivas, K., Balasubramanian, V.N., Erasing the Influence of Source-Exclusive Classes in Domain Adaptation via Adversarial Optimization, CVPR, 2026 (under review).

SKILLS

Languages: Python, C++, Bash

Systems and Tools: Linux, Git, Docker, REST APIs, PostgreSQL, CUDA, SLURM

Perception: PyTorch, OpenCV, ROS2 (rclpy), ViT, NeRF, domain adaptation, sensors (camera, depth), occupancy grids

WORK EXPERIENCE

Machine Learning Research Intern **Hyderabad, India**
IIT Hyderabad | Advisor: Vineeth N B *May 2024 - Feb 2026*
- Conducted research in domain adaptation for deep learning for perception (ViT, ResNet) under distribution shift.
- First-author paper under peer review at CVPR 2026.

Computer Vision Research Intern **Hyderabad, India**
IIIT Hyderabad | Advisor: Ravi Kiran S *May 2023 - July 2023*
- Developed classical and deep learning models (ViT, CNN, U-Net) for segmentation in challenging visual conditions.
- Evaluated state-of-the-art binarization model, improving performance via Focal Loss (+1.3 PSNR)

AI Consultant **Hyderabad, India**
Payintelli *June 2025 - Aug 2025*
- Developed and evaluated fraud detection ML models on 1M+ real-world transactions at production scale.
- Implemented a client-centric static rule base and decision thresholds to manage the recall-false positive tradeoff.
- Delivered production-ready APIs integrated with frontend dashboards for performance monitoring.

Business Intelligence Intern **Hyderabad, India**
PXP Financial *Feb 2025 - June 2025*
- Trained ML-based classification models for deployment-critical systems under performance and latency constraints.
- Built reusable queries and reporting pipelines to track performance drift and trigger retraining.

PROJECT EXPERIENCE

Novel Object View Synthesis (NeRF)
- Built 3D object representations and synthesized novel viewpoints using Neural Radiance Fields (NeRF) in PyTorch for AI vision and high-fidelity 3D scene reconstruction from sparse multi-view images.

ACTIVITIES

Computer Vision Team Member **Ann Arbor, MI**
University of Michigan Autonomous Robot Vehicle Team (UMARV) *Jan 2026 - Present*
- Built sensor calibration and perception tooling to fuse multiple depth-camera inputs (point clouds, occupancy grids).
- Communicated outputs via ROS2 (rclpy) for downstream real-time planning and control in autonomous vehicle stack.

Founding Member **Hyderabad, India**
Team TEQQ Televisors *Jan 2016 - Dec 2020*
- Programmed competitive robots for: (i) task solving (WRO, FLL), (ii) line following (RCJ), (iii) battling (Robofest)
- Won 15+ awards, including 4 world championship titles at Robofest, and best strategy award at First LEGO League.