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EXPERIENCE

- Ananta Technologies** Dec 2026 – Present
Robotics Software Intern India
 - Collaborated with US-based client to enhance build test efficiency and streamline simulation workflows
 - Developed and executed robotic test scenarios using the MuJoCo simulator for performance validation.
 - Performed real-world testing on Webots robotic platforms and analyzed system behavior.
 - Successfully supported the deployment of two robots within the internship timeline.
- AIR Centre VIT-AP** [!\[\]\(38441ceaa711016e0bf2ad46ad394ff4_img.jpg\)](#) Jun 2024 to Nov 2025
Student Researcher Amaravathi, India
 - Designed a neuro-symbolic AI system that leverages LLMs to auto-generate malicious payloads (SQLi, XSS, BOLA) from real-time API metadata.
 - Increased vulnerability discovery rate by **34%** compared to traditional SAST/DAST by combining symbolic reasoning with adaptive fuzzing.
 - Reduced manual security testing workload by **70%** through automated OWASP-compliant risk scoring and exploit generation.
 - Built a modular security-testing pipeline (input validation → fuzzing → auth checks → exposure analysis) that scales across multi-service APIs.
- Vulcan: Self-Driving EV (VIT-AP Initiative)** Jan 2023 – Present
Robotics Intern / Team Lead Amaravathi, India
 - Led perception and navigation software development for a self-driving campus EV.
 - Trained DeepLabV3+ on Mapillary data, achieving **67%** multi-class road scene segmentation accuracy.
 - Implemented lane-following and turn-handling logic for controlled campus environments.

PROJECTS

- EchoSight: Assistive Navigation Glasses for the Visually Impaired (patent pending)** Dec 2024 - Present
YOLOv8 • Roboflow • Raspberry Pi • GCP • OpenCV • TTS [!\[\]\(30a147af384f9f71632c2ff17bc706c8_img.jpg\)](#)
 - Developed a wearable vision-based system for real-time object detection and navigation feedback via Bluetooth earbuds.
 - Fine-tuned YOLOv8 with a custom dataset (50+ object classes), enabling 45+ FPS detection with positional awareness.
 - Integrated spatial direction and distance estimation using monocular vision and depth inference algorithms.
 - Included contextual alerting system with dynamic updates and location-aware voice output for enhanced mobility.
- 16fps: Multi-Video Generation Agent** [!\[\]\(9b33568d5c136f08ca688ce48be37574_img.jpg\)](#) Oct 2025 – Present
Python • LangChain • Stable Video Diffusion • AnimateDiff Self-Employed | SaaS Platform
 - Built an autonomous agentic AI system that generates consistent 1+ minute videos from text prompts using multi-agent orchestration and long-context diffusion planning.
 - Designed self-correcting agent pipeline with memory, tool-use, and reflection to maintain character consistency, scene continuity, and narrative flow across 60+ second clips at 16 FPS.
 - Enabled parallel multi-video rendering with dynamic style transfer and audio sync, deployed as a scalable SaaS service for content creators and marketing teams.
 - Sold commercial rights and operational access to a media production company, delivering on-demand video generation with zero-downtime cloud infrastructure.
- WOAT: Context-Aware Conversational Agent** Jul 2023 – Nov 2023
Gemini API • GCP • Agentic Workflow • Adversarial Testing • Python [!\[\]\(8c93063dab026f10e159986b27c41c64_img.jpg\)](#) [!\[\]\(8a17676a8da87a4e59299223a765e613_img.jpg\)](#)

- Developed WOAT, an agentic conversational system that understands user intent, emotional tone, and situational context to autonomously generate human-like responses on WhatsApp using Google Gemini API.
- Designed an **agentic reasoning pipeline** enabling the system to analyze previous chats, detect communication patterns, infer relationship dynamics, and tailor replies that match the user's vibe and conversational style.
- Implemented an intelligent WhatsApp integration layer (Python + Node.js) supporting context memory, contact-aware behavior, QR-based secure login, and fallback recovery modes.
- Built modules for **tone adaptation, situation understanding, priority ranking**, and adversarial testing to ensure robust, safe, and contextually aligned responses.

• DeepShield: Face-Swap Deepfake Detection Model

Jul 2023 – Nov 2023

CNN • GAN • OpenCV • Adversarial Testing • Python

 – Research Paper

- Engineered a CNN-based deepfake detection model, achieving 22% increase in classification accuracy.
- Created a synthetic video generation tool for data augmentation, expanding dataset variability by 40%.
- Validated performance using precision-recall and ROC-AUC metrics; reduced false positives by 18%.
- Conducted adversarial stress tests to evaluate detection robustness under manipulated inputs.

PUBLICATIONS AND ACHIEVEMENTS

- Awardee in Vikas 2024 Innovation Challenge for 'EchoSight' — a wearable assistive technology solution.
- Winner of Engineering Clinics 2024 for developing a novel real-time threat detection framework.
- **Patent Pending** — **EchoSight**: Filed a patent for an AI-powered assistive wearable.
- **Deepfake Detection Research** — **iSAI 2025**: Published the paper in the 20th International Conference.

SKILLS

- **Deep Learning & Computer Vision** Neural Networks, CNNs, Transformers, Semantic Segmentation, Object Detection, YOLOv8, DeepLabV3+, PyTorch, TensorFlow, ONNX, OpenCV, Vision-based Perception
- **LLMs, Agents & ML Intelligence** LLaMA, Hugging Face, LangChain, RAG Pipelines, Tool-Using Agents, Autonomous Reasoning, Prompt Engineering, Dialogue Systems, Multi-Agent AI
- **Autonomous Systems, Robotics & ML Engineering** Reinforcement Learning (SAC, DAgger), Sensor Fusion (Camera, Radar), Path Planning, Control Systems, ROS, NVIDIA Jetson, Real-Time Systems, MLflow, W&B, Docker, Git, CI/CD, GCP
- **Technologies Frameworks** python, java, HTML, Nextjs, vitejs, javascript

CERTIFICATIONS

- **Machine Learning - Stanford University, Deep Learning AI**[Certification](#)
- **Deep Learning Fundamentals - IBM**[Certification](#)
- **Machine Learning with Python - IBM**[Certification](#)
- **OVO Object Detection Bootcamp - Google**[Certification](#)
- **Machine Learning Specialist-Advanced -IBM**[Badge](#)

POSITIONS OF RESPONSIBILITY

- **President**, ACS International Student Chapter, VIT-AP *Aug 2023 – Present*
- **Marketing Member**, SEDS, VIT-AP *Jan 2023 – Present*

EDUCATION

B.Tech CSE	VIT-AP University, Amaravathi	8.0/10 (2023–2027)
Class XII (Intermediate)	Narayana Junior College	95% (2021–2023)
Class X (SSC)	Vivekananda School	99.3% (2021)