

# ADARSH SARIPALLI

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## SUMMARY

AI developer with expertise in generative AI and human-robot interactions. Demonstrated success in creating scalable AI environments and compliance frameworks, focusing real-world applications and user experiences through innovation.

## EDUCATION

**Master of Science in Computer Science** **Expected May 2025**  
Arizona State University, Tempe, AZ, US. **3.89/4.0 GPA**

**Bachelors of Technology in Computer Science** **May 2023**  
Andhra University, Visakhapatnam, AP, India. **8.62/10.00 GPA**

## TECHNICAL SKILLS

**Programming Languages:** Python, Swift, C#, R, C/C++, Java, SQL (MySQL), JavaScript, CUDA.

**Developer Tools:** Unity, Flutter, Matlab, Git, Jenkins CI, Postman, REST APIs, ROS2, IBM SPSS, Qualtrics XM.

**AI and Data Processing:** Numpy, Pandas, Sklearn, Keras, PyTorch, TensorFlow, Matplotlib, Hugging Face.io, Prompt Engineering.

**Cloud and DevOps:** Kubernetes, Docker, Apache Kafka.

## PROFESSIONAL EXPERIENCE

**Center for Human, AI and Robot Teaming, ASU: Research Assistant Volunteer** **November 2023 - April 2024**

- Collaborated with APTIMA and DARPA to deploy AI simulations on Minecraft test beds, validating 85% of human-robot teaming hypotheses through structured game planning, game design, data collection, and research analysis phases.
- Simulated task scenarios for gameplay testing, boosting teaming accuracy by 74.87% and model feedback reliability.
- Achieved 95% data quality and 90% modeling accuracy through comprehensive data analysis supported by research teams: DARPA ASIST, Gallup, CMURI and IHMC teams, refining hypotheses with contributions from 25+ researchers.

**Multisoftnet Dot Com Pvt. Ltd, IND: Software Development Engineer Intern** **June 2022 - October 2022**

- Built a scalable platform leveraging React, Express, and MongoDB, improving site performance by 30% and supporting over 10,000 monthly users. Integrated backend systems to handle high traffic and real-time data updates efficiently.
- Implemented Multi-Factor Authentication with Duo Security, Role-Based Access Control, and centralized logging (Elasticsearch, Logstash, Kibana ELK stack), reducing security breaches by 40% and increasing system reliability.

## PROJECT EXPERIENCE

**Copyright Compliance Framework for Generative AI** **January 2024 - April 2024**

- Developed a Generative LLM framework to ensure compliance with copyright regulations in AI-generated content.
- Utilized Llama2 knowledge space to train the LLM model, integrating citations for each output to track data sources.
- Implemented Word-Vector matching and ALCE attributes using "hugging face-cli" to suppress outputs that exact-match training data, minimizing regurgitation, enhancing legal compliance and reducing infringement incidents by 47%.

**Enhancing Object Detection with Contextual Enhancement** **January 2024 - April 2024**

- Engineered a robust hand tracking pipeline to recognize pointing gestures, enabling interactions with video content.
- Employed ResNet-50 for object detection from video frames, increasing accuracy by 63% in pointing at objects.
- Synthesized OpenGL for real-time rendering of directional arrows, facilitating gestures. Additionally, linked Faster R-CNN to Deepoint thereby reducing computational overhead by 24% resulting in improved detection speed by 15%.

**Advanced PAC-man: Automated Problem Solving Agent for Ghost Mazes** **August 2023 - December 2023**

- Devised an automated problem-solving agent for Pac-Man mazes, utilizing strategic decision-making techniques.
- Executed multiagent Minimax and Expectimax algorithms to navigate adversarial and stochastic search scenarios.
- Applied reinforcement learning methodologies, including Q-learning, and approximate Q-learning, to increase agent training efficiency by 72% in rational policy-making across dynamic maze configurations, ensuring adaptability.

## LEADERSHIP EXPERIENCE

**Club Lead, Google Developers Student Club, Andhra University, IND** **August 2021 - May 2022**

- Organized tech workshops/hackathons for Google Technologies: Flutter, TensorFlow, Google Cloud, and Firebase.
- Fostered partnerships with industry experts and orchestrated enlightening talks on diverse topics: Blockchain, UI/UX, and Machine Learning. Performed strategies to boost club engagement and event attendance.