

# Aditya Bhooshan Sahasrabuddhe

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## Education

**Arizona State University – Arizona, United States of America**

Master of Science in Computer Science - awarded the Engineering Graduate Fellowship

**Expected May 2026**

**GPA – 3.89/4**

**BITS Pilani – Dubai, United Arab Emirates**

Bachelor of Engineering, Computer Science - awarded the Merit Scholarship

**June 2022**

**CGPA – 8.18/10**

## Work Experience

**Metrum AI**

**Software Developer**

**Bangalore, India**

**August 2022 – July 2024**

- **Custom Solution Projects:**

- Led chemical spill detection project showcased at **Dell Tech World 2024** utilizing **NVIDIA Isaac Sim** with Nova Carter robots for deployment. Introduced **NVIDIA Create XR** for immersive visualization. Exposure at Dell Tech World increased company outreach by 20%.
- Developed a multimodal AI use case demonstrating a **fully automated drive-thru** interaction.

- **Language and Sound Model Projects:**

- Constructed a custom voice assistant, integrating **OpenAI's Whisper** for transcription via a custom **GStreamer Pipeline** with an ALSA backend achieving 80-90% transcription accuracy.
- Collaborated in building **LLM chatbot**, including **fine tuned** versions tailored to client requirements boosting work efficiency by 30%.

- **Vision Model Projects:**

- Transfer learned **YOLOv8-Seg** model to identify custom objects (fire extinguisher) with 93% accuracy.
- Built an application to demonstrate maximum number of **parallel video inference pipelines** from simulated traffic cameras, identifying pedestrian and vehicle violations catching 86%.
- Created an application to oversee factory workers, with capability to identify instances of social distancing violations, unauthorized access to restricted areas, and maintain facial recognition records for monitoring purposes as proof of concept.

- **Other Involvement:**

- Initiated code reviews at each sprint's end, ensuring code quality.
- Analyzed data and generated detailed reports for benchmarking projects.
- Trained and mentored interns, guiding through entry-level tasks to ensure smooth team integration.

**L&T Electrical and Automation**

**Projects Intern (Automation)**

**Dubai, United Arab Emirates**

**August 2021 – January 2022**

- Researched in development of PLC (Programmable Logic Controller) and SCADA (Supervisory Control and Data Acquisition) systems for automating freight facilities of Etihad Rail.

## Academic Projects

**Image Classification using CNN** - Built a Convolutional Neural Network (CNN) model for image classification, focusing on different types of animals achieving 90% accuracy.

**Game Development (2048 Tile)** - Generated heuristic search algorithm to solve the 2048 Tile game for an Artificial Intelligent agent making decisions 6x faster than humans (On average 6 Moves Per Second vs 1 Move Per Second).

## Technical Skills

**Programming Languages and Tools** - Python, Java, C++, Gstreamer, DLStreamer pipelines, FFMPEG, Docker containers, API Servers, NVIDIA Omniverse, AI Workloads, SQL, Microsoft Excel (Pivot Table).