

# Aditya Bhooshan Sahasrabuddhe

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## EDUCATION

### Arizona State University

Master of Science in Computer Science - GPA: 4/4

Arizona, United States of America

awarded the Engineering Graduate Fellowship

### BITS Pilani

Bachelor of Engineering, Computer Science - GPA: 3.4/4

Dubai, United Arab Emirates

awarded the Merit Scholarship

## WORK EXPERIENCE

### Metrum AI

Software Developer (Applied AI)

Austin, TX, USA

May 2025 – Present

- Engineered an AI-Assisted Evaluator using vLLM + Guardrails AI, increasing grading throughput by atleast 5x.
- Built an AI agent for automated PPT generation using natural language and RAG, delivering 10x faster output.
- Streamlined dev workflows by identifying bottlenecks with product managers, boosting team efficiency by 1.5x.
- Leveraged humanoid robots and AI tools to create marketing content that amplified product outreach by 2x.

### Metrum AI

Software Developer

Bangalore, India

August 2022 – July 2024

- Led a chemical spill detection project using Isaac Sim and Nova Carter robots with XR overlays, increasing outreach by 20% post Dell Tech World 2024.
- Created a multimodal AI system simulating drive-thru conversations with real-time vision, speech, and LLMs.
- Developed a production level voice assistant using Whisper + GStreamer, achieving 80–90% accuracy.
- Fine-tuned client-specific LLM chatbots, boosting team productivity by 30% through tailored response accuracy.
- Transfer-learned YOLOv8-Seg to detect extinguishers, achieving 93% segmentation accuracy in industrial settings.
- Built a real-time traffic monitoring system simulating parallel video inference, detecting 86% of rule violations.
- Designed a safety tool to monitor social distancing and detect restricted zone breaches via live video analytics.
- Organized code reviews and structured testing cycles, enhancing code quality and reusability across the team.
- Mentored interns through hands-on tasks and onboarding, accelerating ramp-up by 50%.

### L&T Electrical and Automation

Project Automation

Dubai, UAE

August 2021 – January 2022

- Developed and tested PLC logic for Factory Acceptance Tests (FAT), achieving a 100% module pass rate.
- Coordinated component inspection and dispatch, securing 100% on-time delivery with zero defects.

## RESEARCH & PERSONAL PROJECTS

### LLM-Based Song Finder (Natural Language Vibe to Music)

[GitHub](#)

- Engineered a multi-agent system using LLMs, search APIs, and the Spotify API to translate vibe-based natural language prompts into accurate music recommendations.

### Pitch Perfect: AI-Powered Mock Interview Tool (2nd Place Winner – Hackathon)

[GitHub](#)

- Developed an end-to-end AI interview platform using Whisper for transcripts, Ollama for LLM-based evaluations.
- Achieved real-time feedback with 80% alignment to human reviewer scores, enhancing evaluation consistency.

### Multi-Agent Framework for Solving Logic-Intensive Grid Puzzles

[GitHub](#)

- Designed a Multi LLM agentic system using Constraint Agent for propagation, Solution Agent for table synthesis.
- Achieved 39% accuracy on the GridPuzzle dataset, outperforming CoT and ToT by 7% and 26% respectively.

### Web Aim Trainer (3D FPS Game in Browser)

[GitHub](#)

- Built a 3D browser-based FPS aim trainer using Three.js and WebGL featuring raycasting hit detection, dynamic targets, pointer lock controls, and real-time scoring analytics.

## TECHNICAL SKILLS

**Programming, AI/ML & Analytics:** Python, C++, Java, SQL, HuggingFace Transformers, Jupyter, Microsoft Excel (Pivot Tables), Ollama, OpenAI APIs, PyTorch, vLLM, Whisper, YOLO

**Systems, DevOps & Simulation:** Docker, REST APIs, API Servers, Git, GStreamer, DLStreamer, FFMPEG, NVIDIA Isaac Sim, NVIDIA Omniverse