ADITYA CHAKRAVARTHI

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EDUCATION

Arizona State University

Tempe, AZ

Master of Science, Computer Science

Graduating May 2025

Relevant Courses: Distributed Systems, Decision Making in AI, Combinatorics, Reinforcement Learning

BMS College of Engineering

Bangalore, India

Bachelor of Technology, Information Science

May 2023 3.71/4 GPA

Relevant Courses: Data Structures & Algorithms, Operating Systems, Database Systems, Big Data, Object Oriented Concepts, Machine Learning, Deep Learning, Networks, Mobile Computing

TECHNICAL SKILLS

Programming & Scripting: Python, C++, HTML, CSS, JavaScript, Java, MySQL, NoSQL

Libraries & Frameworks: TensorFlow, PyTorch, Android Studio, gRPC, Gym, MongoDB, OpenCV, Node.js

WORK EXPERIENCE

Caterpillar

Bangalore, India

Software Development Intern

March 2023 - July 2023

- Performed object detection using Deep Learning on YoloV3 model, testing with COCO dataset for 95% accuracy.
- Benchmarked Frames Per Second (FPS) for real-time models Yolact and RTMDet, observing improvements of 10%.
- Initiated Voxel FiftyOne as POC for visualization of true and false positives, improving understanding by 30%.

EvoluteIQ Software Engineering Intern Bangalore, India

September 2022 - November 2022

- Automated collecting up to 20 parameters from clients using RESTful API in Flask, resulting in faster production.
- Supported ML model creation automation, increasing the company's rate of jobs completed by 10%.

ACADEMIC PROJECTS

Deepfake Detector (TensorFlow, CNN, Python)

- Deployed a CNN model, MesoNet to classify if an image is a Deepfake image or a real image with an accuracy of 92%.
- Tested and trained on a dataset of over 2000 images from different sources, avoiding bias.

Banking System (gRPC, Python)

- Assembled a banking system with RPC calls through gRPC in Python, tested concurrently with 100 processes.
- Propagated balances to all bank servers, ensuring time coordination with Lamport logical clocks.

Logistics Reinforcement Learning Agent (Gym, Python)

- Created an RL Agent to control robots in fetching, processing and delivering materials to the final station.
- Analyzed multiple algorithms including A2C, DDPG and SARCA on a custom environment built with Gym.

Text to Speech App (Android Studio, Java)

- Developed a text-to-speech and speech-to-text application through Android Studio in Java.
- Produced I/O logic to write and read into file, storing the history of maximum 200 texts.

Face Censor (OpenCV, Python)

- Implemented a program to censor the faces that appear on any video, blocking up to 10 faces at a time.
- Detected facial landmarks and performed image resizing using OpenCV and DLib.

Discord Search Bot (Node.js, Javascript)

- Created a Discord bot for easy Google and Yahoo searches in chats, providing a screenshot of the first few results.
- Provided search through Node.js and JavaScript API Puppeteer to access Chrome and auto search queries.

LEADERSHIP SKILLS

Rotary

Health Camp Coordinator, Bangalore

• Coordinated in a team for 3 health camps organized by Rotary Club, helping the doctors smoothly conduct the camp.