ADITYA KUNTE

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EDUCATION

University of Illinois - Urbana-Champaign   **August 2025 - May 2026**
Master's, Computer Science

University of Illinois - Urbana-Champaign   **August 2021 - May 2025**
Bachelor's, Computer Science   *GPA: 3.86*

PROFESSIONAL EXPERIENCE

CreateLab   **Champaign, IL, USA**
Undergraduate Research Assistant   *August 2024 - Present*
- Implemented a multi-threaded version of Python's "pickle" module in C.
- Created a custom thread-pool implementation to manage serialization tasks at the C level.
- Utilized GIL management and C-level synchronization to create thread-safe resource access.

Applied Research Institute   **Champaign, IL, USA**
Software Engineer   *May 2024 - Present*
- Developed mealplot.com, a weight-tracking tool, using React, enhancing user engagement by providing detailed nutritional insights.
- Built a Flask API endpoint to serve user data to the React webpage, improving data retrieval efficiency.

Disruption Lab   **Champaign, IL, USA**
Software Engineer   *January 2024 - May 2024*
- Wrote bash scripts to automate the launch of virtual machines, collect hardware performance counter values, and reset VM state in order to collect data for a machine learning model specializing in malware detection.

Centelon IT Solutions   **Mumbai, MH, India**
Machine Learning intern   *May 2022 - August 2022*
- Created an image web-scraper to collect images of credit cards using Python's Selenium Library.
- Researched on developing a Generative Adversarial Network (GAN) to generate Credit Card images using machine learning.

PROJECTS & OUTSIDE EXPERIENCE

Board2Ticket - Hackillinois 2025 Winners
- Implemented an OpenCV-based pipeline to extract and process whiteboard content, using contour detection and DBSCAN clustering for structured text and diagram recognition.
- Designed an audio segmentation and speech-to-text workflow using pydub and OpenAI's Whisper model to transcribe and cluster discussions based on topic relevance.
- Used insights from vision-language models with for enriched context extraction.
- Developed an automated pipeline to generate GitHub issues using REST API endpoints

Quantitative Trading Strategy
- Marked 300 stocks on the S&P Index on the basis of large market cap and high average volume.
- Collected daily stock price data for 2022, 2023 using the Yahoo Finance API.
- Used EDGAR API and scraped net income, shareholder equity from each stock's annual filings.
- Created portfolios of the top 10% of stocks with a high volatility-adjusted momentum.

Voice Clone
- Created a marathi voice-clone after fine-tuning Meta's MMS (massively multilingual speech) text-to-speech model.
- Published and used a Kaggle audio dataset for training

SKILLS

Skills: HTML/CSS, Git, Java, Python, C/C++, React.js, SQL, MongoDB, Tensorflow, Pytorch, Data Structures & Algorithms