






# Yash Agrawal

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## EDUCATION

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**Indian Institute of Technology, Madras**

2022 – 2026

*B.S. Data Science and Application*

*Current GPA: 8.89/10.0*

**Courses:** AI, DL, Machine Learning Techniques, Tools in Data Science, Programming, Data Structures & Algorithms, System Commands, Linear Algebra, Probability & Statistics

## EXPERIENCE

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**UniteCare Software Solutions** | *Software Development Intern*

Sep. - Oct. 2025

- Accelerated physician review by delivering AI-generated clinical summaries from unstructured patient visit notes.
- Scaled an asynchronous system on Azure Container Apps to process over **10,000 PDFs daily**.
- Achieved over **95% test name accuracy** for lab trend plotting by architecting a hybrid normalization service.

**EVD Technology** | *Freelance Developer*

July 2024

- Enhanced FBRef web scraping, boosting data reliability by **80%** for player/team stats.
- Streamlined data ingestion using ChatGPT and PostgreSQL to enable natural language-driven session planning.
- Integrated Dockerized frontend, API, and action servers on AWS EC2, reducing deployment time by **50%**.

## PROJECTS

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**Voice Controlled Natural Interface** | *PyTorch, Transformers, LLM Agents, MLOPs*

Jan. 2025

- Built real-time conversational AI with **sub-2s latency** across STT, NLU, LLM, and TTS.
- Fine-tuned XLM-R on MASSIVE dataset (**52 languages, 60 intents, 55 slot types**) for joint NLU.
- Implemented agentic AI with tool calling for weather, music, IoT, and web search integration.
- Deployed NLU model as serverless inference on Modal with memory snapshots for fast cold starts.

**CoinCraft** | *FastAPI, SQLite, TypeScript, LLM APIs*

Jun. - Aug. 2025

- Led development of financial literacy platform for children; awarded **Best Course Project at IIT Madras**.
- Built LLM-powered learning modules with gamified progression (coins, tasks, achievements).
- Designed age-adaptive content delivery system with personalized curriculum recommendations.
- Implemented role-based workflows for teachers, parents, and students with progress tracking.

**Home Service** | *Vue, Flask, Redis, Celery, Docker*

Oct. - Nov. 2024

- Developed Flask-Vue platform with JWT auth, **cutting API response time by 25%** via Redis caching.
- Automated service monitoring with Celery workers and real-time admin dashboards.
- Built role-based access control for professionals, customers, and administrators.
- Containerized full-stack application with Docker Compose for consistent deployments.

## SKILLS

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**Programming:** Python, JavaScript, SQL, Bash

**ML/DL:** PyTorch, TensorFlow, HuggingFace, LangChain, ChromaDB, spaCy, NLTK

**Data Tools:** Pandas, NumPy, Scikit-learn, Matplotlib, Tableau

**DevOps:** AWS EC2, Docker, GitHub Actions, Linux, NGINX, PostgreSQL

**Frameworks:** Flask, FastAPI, Vue.js, React, Node.js