

# Venkata Keerthan Nimmala

## SDE Applied AI

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## SUMMARY

Software Development Engineer with professional experience in building scalable backend systems, microservices, and automation solutions. Proficient in Python, FastAPI, REST APIs, system design, and rapid prototyping. Engineering graduate from IIT Madras, passionate about solving diverse problems and delivering impactful software solutions.

## EXPERIENCE

### SDE Applied AI

Adaequare 03/2025 - Present Hyderabad, IN

Built scalable backend systems, microservices, and automation solutions for data extraction, ETL pipelines, and rapid prototyping in the applied AI domain.

- Built backend and application for OCR and NLP/LLM pipeline. Automated extraction from over 10,000 property appraisal PDFs per year, saving approximately 300 manual hours per month driving up efficiency and reducing processing time for customers.
- Created a two-layer matching/ETL pipeline (Heuristics + LLM) standardizing 50+ tax-roll datasets/year, scaling to 3,000+ counties. Delivers fallbacks, logging, analyst-ready outputs, cuts review time by 85%, with API/CLI integration.
- Created AI-powered MSA metadata extraction, transforming contracts to structured JSON. Improved CRM automation efficiency, reduced manual review, and enhanced data consistency.

### Part-Time Founding Engineer / Consultant

QFI Research Capital 04/2025 - 08/2025 Hyderabad, IN

Led development and strategic planning for an algorithm-driven trade execution system, including real-time analytics, risk management, and signal generation.

- Built core backend and application components using PostgreSQL, InfluxDB, Docker, Kafka, Redis, Kite Connect, and integrated risk engines, enabling real-time trade execution and data aggregation.
- Contributed to the strategy for AI integration, risk modeling, and signal generation, laying the foundation for future portfolio management extensions.

## PROJECTS

### Algorithmic Trading Platform Development

Built an algorithm-driven trading platform with real-time analytics, risk management, and modular architecture. Established foundations for portfolio management extensions and future AI-driven improvements.

### Automated Property Appraisal Extraction

Built an OCR + NLP / LLM pipeline using FastAPI, Tesseract, Detectron, NLTK, Gemini, LangChain, etc. designed to extract structured data from appraisal reports at scale. Developed frontend for demos and put in production.

### Automated ETL Pipeline

Built an ETL pipeline in Python using custom algorithms, fuzzy matching, semantic patterns, and heuristics. Designed the pipeline for iterative learning and scalability, supporting flexible data transformation and validation.

## FIND ME AT

 <https://github.com/keerthanvenkata>

 <https://portfolio-liard-pi-84.vercel.app/>

 <https://www.linkedin.com/in/venkata-keerthan/>

## EDUCATION

### B. Tech, Aerospace Engineering

Indian Institute of Technology, Madras (IITM)

2025 Chennai, IN

- Specialized in autonomous systems, guidance and navigation, and applied control theory.
- Worked on UAV path planning and computer vision as part of academic research.
- Awarded Scholarship for Academic Excellence.

## SKILLS

### Programming Languages

**Python (Expert)** **SQL** **Bash**

**JavaScript** **C++** **TypeScript**

### Frameworks & Tools

**FastAPI** **Django** **Streamlit** **React**

**Docker** **Kafka** **Redis** **Git**

**CI/CD (basic)**

### Databases

**PostgreSQL** **MongoDB** **InfluxDB**

**MySQL** **SQLite**

### Algorithms & System Design

**Data Structures** **Algorithms**

**Microservices** **ETL Pipelines**

**Distributed Systems** **Modular Architecture**

**System Scalability**

### AI / ML

**LLM Integration** **OCR Pipelines** **NLP**

**RAG** **Agents** **LangChain**

## AWARDS

 Scholarship for Academic Excellence - IIT Madras

 Two time KVPY Fellow