

Yagnesh Mangali

West Des Moines, IA | (716) 345-9707 | yagnesh.mangali@atronous.ai | [LinkedIn](#) | [GitHub](#)

SUMMARY

Software Engineer – AI/ML with experience building production AI/ML and LLM-enabled data processing systems in Python. Worked on large-scale ingestion pipelines, document understanding/OCR, and automation workflows that transform unstructured web and PDF data into structured product signals. Contributed to end-to-end delivery including backend services, evaluation, and deployment.

TECHNICAL SKILLS

Languages: Python, SQL, Java

ML & AI: NLP, Transformers, XGBoost, Isolation Forest, Anomaly Detection, Autoencoders

LLMs & GenAI: RAG Pipelines, embeddings, prompt engineering (few-shot, CoT), LLM evaluation, Gemini, GPT

Libraries & Frameworks: PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy, FastAPI

Cloud & Data Infra: AWS (S3, Lambda, SageMaker), GCP, Docker, vector DBs (FAISS, Pinecone)

ML Systems & Reliability: REST APIs, async Python, schema validation, model versioning, fault-tolerant systems

EXPERIENCE

Atronous.ai Inc

Milpitas, CA

Software Engineer - AI/ML

Jul 2025 – Present

- Led the design and operation of a multi-tenant web data extraction system in Python across 15+ e-commerce sites, handling consent flows and dynamic UIs to minimize manual intervention and reduce QA effort by 60%.
- Owned an end-to-end data pipeline combining parsed PDFs, images, and scraped pages to populate 40+ structured attributes per SKU for 10k+ SKUs, cutting turnaround time from 3 weeks to 3 days.
- Designed LLM-powered enrichment workflows for product titles, bullets, and descriptions, increasing acceptance of AI-generated content by 30% and reducing manual copywriting effort by 50%.
- Maintained a versioned internal Python library for document and schematic parsing, emitting LLM-ready JSON via typed configuration and Docker to enable reuse across three production repositories.
- Mentored an AI/ML intern on document parsing and logo detection from PDFs, guiding system design and reviews to ship a production module processing 100+ PDFs per run within three weeks.
- Evaluated and chose between rule-based, traditional ML, and LLM-driven approaches to balance accuracy, latency, and cost in high-volume data ingestion workflows.

Atronous.ai Inc

Milpitas, CA

Software Engineer Intern

Feb 2025 – Jun 2025

- Built document and schematic extraction pipelines in Python using OpenCV, Tesseract, and Gemini, achieving 90% accuracy on 50+ files and reducing processing time by 70%.
- Prototyped scraping and parsing workflows with Playwright and OmniParser v2 and Dockerized them for config driven execution on shared infrastructure.

EDUCATION

University at Buffalo, The State University of New York

Aug 2023 – Dec 2024

Master of Professional Studies in Data Science and Applications: Current GPA- 3.77/4.0

Buffalo, NY

Coursework: Machine Learning, Database Management Systems, Statistical Data Mining, Probability Data Analysis.

Vidya Jyothi Institute of Technology

May 2019 – Jun 2023

Bachelor of Technology in Artificial Intelligence: GPA - 3.4/4.0

Hyderabad, India

Coursework: Computer Vision, Deep Learning, Natural Language Processing, Neural Networks, Data Structures.

PROJECTS

SQL Generation With Gemini | Gemini, Streamlit, MySQL, python-dotenv

Aug 2024

- Developed a **Streamlit-based chatbot** integrates Google's Gemini **Generative AI model** for dynamic SQL query generation and data summarization, decreasing query response time by **40%** and enhancing user interaction.

AI Integrated Drone | YOLO v5, OpenCV, Python, Matplotlib

Mar 2023

- Led a team in utilizing the **YOLO v5** deep learning framework for real-time object detection of pedestrians and vehicles in live video feeds from a surveillance drone, attaining **85%** detection accuracy.