KIRTI SIKKA

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SUMMARY

Curious and adaptable software engineer with a strong foundation in AI, machine learning, and full-stack development. Hands-on experience building intelligent systems for document understanding, automation, and analytics. Skilled in Python, ML , SQL, and deploying real-world solutions using modern tools. Comfortable working independently or in collaborative teams, and always ready to learn, unlearn, and apply new technologies in dynamic environments.

EDUCATION

B.Tech in Computer Science with AI, Amrita Vishwa Vidyapeetham — Present
CGPA: 8.03
St. Mary's Sr Sec School — 12th CBSE: 95%, 10th CBSE: 93%

SKILLS

Languages:	Python, C++, JavaScript
Frameworks:	React.js, Node.js, Express.js, Django, FastAPI
Libraries/Tools:	Docker, Git, WebSockets, Pandas, OpenCV, Streamlit,Selenium,Numpy FAISS, LangChain
ML/DL:	TensorFlow, PyTorch, Scikit-lear,Pandas
Databases:	MongoDB, PostgreSQL, SQLite
Cloud/DevOps:	Azure, GitHub Actions, Docker Compose,AWS
Other:	UI/UX Design, Teamwork, Leadership, Mentoring

EXPERIENCE

AI Engineer Intern — June 2024 - August 2025
Ylogx, Kochi

- **RequirementBricks** — July 2025 – August 2025
  Node.js — MongoDB — WebSockets — React.js
  – Built a low-latency voice bot to automate candidate screening using real-time communication and AI integration
  – Built dashboards for recruiters with analytics and result tracking using MongoDB and Express.js

- **Tap-in – Conference Event Management Platform** — March 2025 – July 2025
  React.js — Node.js — Express.js — MongoDB — Docker — GitHub Actions — Azure
  – Developed and deployed full-stack system to manage company events with secure registration and payments
  – Enabled email broadcasting on payment confirmation and dynamic event link generation
  – Dockerized services and automated deployment using GitHub Actions on Azure Services

- **Invoice Processing Automation** — June 2024 – Jan 2025
  Python — Spacy — LayoutLM — FastAPI — React.js —Django — SQL — Docker
  – Conducted comprehensive research on OCR technologies and created custom datasets for invoice processing
  – Trained and fine-tuned multiple models including Spacy NER, LayoutLLM, and Donut from scratch with detailed annotations
  – Integrated the ML pipelines with backend services and contributed to frontend development using React
  – Achieved 92% accuracy in field extraction through ensemble approach and custom post-processing

PROJECTS

CadIntel – AI-driven Engineering Drawing Automation — May 2025–July 2025
Python — OpenCV — PaddleOCR — Ollama LLM — FastAPI — PostgreSQL — Streamlit
Developed a modular 3-pipeline system to extract structured data from engineering drawings, handling text, tables, and graphical content separately. Integrated OCR with a local LLM for intelligent text structuring, achieving high accuracy in GD&T extraction. Built APIs and dashboards enabling search, retrieval, and visualization, reducing manual processing time and improving reliability for manufacturing teams.

Medical Inventory Automation December 2024
PaddleOCR — LayoutParser — Python — Pandas — OpenCV— Streamlit
Automated medical inventory management system processing 1000+ monthly invoices with 98% field extraction accuracy. Implemented custom document layout analysis using LayoutParser and intelligent text correction system. Reduced manual data entry time by 80% while maintaining high accuracy through domain-specific validation rules.Deployed on Streamlit.

Amrita Summer Internship (HCI Application) Jan - Feb 2024
React.js — Django — Docker — PostgreSQL
Built a web platform for analyzing user interaction patterns with real-time session tracking and heatmap generation. Containerized the full-stack application using Docker for seamless deployment across environments.

Martian Chronicles Dec 2023 - Jan 2024
Python — PyQt6 — NASA API — SQLite — Pandas
Created a desktop application for real-time access to Mars rover imagery with automated NASA API synchronization. Developed an intelligent search system with filtering capabilities for mission sols, cameras, and capture dates. Implemented local caching and automated email reporting system with customizable templates.

OPEN SOURCE CONTRIBUTIONS

Wikimedia December 2024
BulkOCR Project,Bhubaneswar, Odisha
Developed and implemented an OCR pipeline for Wikisource, enabling efficient book transcription and digital accessibility improvements. Created automated workflows for bulk processing of historical documents.

InfoBox Enhancement Project, Kochi, Kerala
May 2024
Created a UserScript to extend infobox functionalities on Wikimedia platforms, improving data structuring and completion capabilities.

Shaktikon 2023 Website
Contributed to the development and deployment of Shaktikon's official website, ensuring optimal performance and accessibility.

CERTIFICATIONS

NVIDIA Deep Learning Institute (DLI) 2024
Completed specialization in Deep Learning and AI, with hands-on training in neural networks, computer vision, and model deployment.

PUBLICATIONS

"A Systematic Review on Pre-Trained Models on C-NMC Leukemia Using Deep Learning"
Kirti Sikka, Aniketh Vijesh, Remya S.
Comprehensive review of deep learning-based leukemia detection models, highlighting various preprocessing, segmentation, and classification techniques. Link.

ACTIVITIES

amFOSS (Amritapuri Free and Open Source Software Club)

- Guided 20+ students and committed to ongoing mentorship, encouraging them to contribute to open-source projects and participate in hackathons, meetups, and competitions.
- Led and organized various club events, including hackathons and workshops, fostering an active and collaborative developer community.
- Assisted new members in open-source contributions, development workflows, and technical skill-building.

Hacktoberfest Speaker
Invited speaker at Hacktoberfest, where I delivered a session on open-source contributions, version control, and community collaboration.