

ARYA MADDEL - Machine Learning Engineer

[Website](#) | [Linkedin](#) | [Github](#) | aryamaddel@gmail.com | +91 8806642286

OBJECTIVE - Machine Learning Engineer with experience in advanced Image processing research, MLOps pipelines, and production-ready AI systems. Interested in building scalable ML architectures and applied AI solutions.

EXPERIENCE

- **Machine Learning Intern: In2Peta Services Private Limited** | Feb 2026 - Jul 2026
Designing and deploying ML pipelines using Python and Docker, implementing CI/CD-based MLOps workflows for automated training, versioning, and deployment.
- **Project Lead: Aerial Mappers & Surveyors LLP** | Jan 2024 - Mar 2024
Developed an autonomous drone system with variable payload capability using the Pixhawk open-source flight controller.
- **Project Lead / Full-Stack Developer: Sujalam Chemicals** | May 2023 - Aug 2023
Built a cross-platform inventory management app (Android/iOS) using React Native, Express, SQLite, Ngrok; handled UI, backend, and database.

PROJECTS

- [Autonomous Drone](#) - Built a Pixhawk-based drone platform with waypoint navigation, payload handling, and flight parameter tuning for delivery use cases.
- [OpenAnim](#) - Multi-tool LLM agent platform for programmatic animation. Routes natural language prompts to deterministic renderers (Manim for math animation, Kroki for diagrams) via an LLM orchestrator with tool-calling, SSE streaming, web search (Tavily), RAG over documentation, and content-addressed caching. Designed for extensibility - evaluated Remotion integration for browser-based video rendering.
- [DIQA](#) - No-Reference Image Quality Assessment (NR-IQA) framework with a unified interface and dynamic routing mechanism for model selection (Published at IEEE ETFI 2026, Maddel et al.). [GitHub](#)
- [IN2PETA Coding Plan & LLM Gateway](#) - Designed and built the SaaS coding platform (in2peta.com/coding-plan) from scratch: subscription tiers (Free/Go/Pro), model catalog with tier-based access, usage-based billing (Razorpay/Stripe), and API key management. Configured and integrated LiteLLM gateway with 11+ frontier models (DeepSeek, Hermes, GLM, Kimi, Gemma) across Nebius and Fireworks providers, implementing smart routing, real-time usage tracking, budget enforcement, and a usage leaderboard. Built the Fastify API and Next.js frontend.
- [Inventory Management System](#) - End-to-end inventory tracking system with role-based access, real-time updates, and database-backed reporting for a manufacturing client.

EDUCATION

- Bachelor of Technology in Computer Science and Engineering | DES Pune University | CGPA: 8.76 | Aug 2024 - Jun 2027
- Diploma in Computer Engineering | Sou. Venutai Chavan Polytechnic | 87% | Sep 2021 - Jun 2024
- ICSE Board | Hutchings High School | 90.67 % | 2011-2021

PUBLICATIONS

Maddel et al., "**Adaptive Hybrid Architecture for NRIQA**," in *Proceedings of the 2026 International Conference on Emerging Technologies and Future Innovations (ETFI)*, Pune, India, 2026, pp. 1-7, doi:

10.1109/ETFI68128.2026.11484766. Proposes a dynamic routing pipeline that predicts and executes the optimal NR-IQA model using low-cost perceptual features and a gradient-boosted classifier, reducing latency while maintaining performance comparable to deep models like HyperIQA.