Aarya Patil

📞 +91 8928008368 ✉ aaryapatil3004@gmail.com 🔗 Valgaza 📇 Portfolio in Aarya Patil

Profile

Computer Engineering student with strong background in Machine Learning (primarily RAG, NLP, Computer Vision, Deep Learning), and Web2 and Web3 development. Experienced in building document intelligence systems, real-time telemetry pipelines, and full-stack platforms. Skilled across the ML lifecycle and modern web frameworks.

Education

- **K. J. Somaiya College of Engineering** (2023 – 2027)
  Current GPA: 9.25

Experience

- **AI/ML Intern, PwC India** (May 2025 – August 2025)
  - Built a document pipeline processing ≈ 1,800 pages/hr with **OpenCV + YOLO-v8** achieving **92% precision** in hard copy to digital conversion, and cutting manual data-entry effort indefinitely.
  - Designed an **NLP** workflow for an **Indian State Government** that ingests monthly reports from 60+ departments, **cleans**, **normalizes**, and formulates consolidated reports, cutting analysis time from 2 days → 30 mins.
  - Authored an **Open Source Software licensing compliance** checklist adopted department-wide.
  - **Tech**: Python, OpenCV, YOLOv8n, Hugging Face Transformers.

- **Data Acquisition Engineer, Orion Racing, K. J. Somaiya CoE** (Feb 2024 – Oct 2024)
  - **Integrated 25+ CAN-Bus sensors** and streamed telemetry to a React dashboard with sub-200ms latency, enabling **real-time monitoring** of battery, thermal and suspension metrics.
  - Automated anomaly detection across **100k+ datapoints** per lap, accelerating post-race fault diagnosis 5×.
  - Created calibration & documentation pipelines that reduced rookie onboarding time by 40%.
  - **Tech**: Python, C/C++, React, CAN-Bus.

Projects

- **DocuSage – The Oracle of all Files**
  - Built a **retrieval-augmented generation (RAG) pipeline**, processing tabular, and textual data from a wide array of document types, generate embeddings, achieving 97%+ accuracy.
  - Engineered **semantic + hierarchical chunking** for precision retrieval; handled complex queries end-to-end in 20s with high factual correctness.

- **BlockPass – NFT based Movie Ticketing Website**
  - Built using the **MERN stack + Solidity**, issuing **soul bound NFT's** as tickets to user's crypto wallets, **eliminating reselling and scalping** at source.
  - Venue level **QR's scanning to verify NFT's** which convert into unique event specific collectibles post event/movie.

- **Hiring Suite – AI-powered Hiring Workflow Tool**
  - Built AI-driven hiring platform with **NLP, Gemini, and CV**, automating resume parsing and interview scoring; cut recruiter workload by 70%.
  - Added real-time fraud detection and soft-skill analysis via **emotion recognition**, reduced evaluation time by 60% with consistent candidate scoring.

Achievements & Certifications

- **Competitive Programming:** Rated 1600+ LeetCode, ranked **Pupil** on CodeForces.
- **DeepLearning.AI Specialization (4 courses):**
  - Neural Networks and Deep Learning, Improving Deep Neural Networks, Structuring Machine Learning Projects, Convolutional Neural Networks (CNNs)

Knowledge and Skills

- **Web Dev:** MongoDB, Express, React, Next, Node, REST APIs, Git, Docker.
- **ML Concepts:** End-to-end ML workflows, evaluation metrics, RAG (Retrieval-Augmented Generation), NLP (Natural Language Processing), Computer Vision.
- **Core Languages:** Python 3.13, Java, C++