MEVIN JOSE

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GitHub: https://github.com/MJenius | **Portfolio:** https://mjenius.github.io/Portfolio/

SUMMARY

Software and AI/ML engineering student at PES University (2023–2027) skilled in building ML pipelines, real-time computer vision systems, and reinforcement learning agents. Experienced in model deployment, data pipeline automation, and CI/CD using GitHub Actions and Vercel, with hands-on expertise in testing (PyTest, unit and integration) and model development using PyTorch and TensorFlow. Passionate about creating scalable AI-driven solutions and backend architectures that connect data intelligence with real-world impact. Committed to continuous learning, innovation, and applying AI technologies to solve complex, high-impact challenges.

EXPERIENCE

Web Development Intern — Superhhero Learning | Jul–Sep 2025

- Engineered and launched a production **MERN** landing platform receiving ~100 monthly users.
- Collaborated with developers to APIs and improved workflow efficiency, reducing development time **25%**.
- Enhanced backend performance and caching, improving load time **10%** for deployed traffic.
  Tech: React, Node.js, Express, MongoDB, REST APIs,Vercel Auto-Deploy

PROJECTS

AEGIS — Tamper-Resistant Surveillance System *(Top-10 Kodikon Hackathon)*

Real-time CV platform protecting CCTV feeds using HMAC-SHA256 watermarks, multi-sensor tamper detection (blur, glare, shake, blackout), and event logging.

- Achieved <2% false positives and <100ms detection latency across live camera streams.
- Implemented glare rescue (CLAHE) and optical-flow reposition detection for robustness.

Link: https://github.com/ZeroDeaths7/AegisAI-tamper-resistent-surveillance-system
Tech: Python, OpenCV, Flask, Socket.IO, ffmpeg, SQLite

Adaptive Traffic-Signal Control (PPO + SUMO)

RL system optimizing emergency routing using **PPO**, trained on a large Bangalore traffic dataset.

- Reduced emergency travel time **10.6%**; trucks **4.2%**, cars **3.4%**, bikes **1.2%**.
- Designed SUMO environments, implemented PPO agent,automated training/eval pipelines, and analytics visualizations.
  Link: https://github.com/rajeev8008/sumo-traffic-rl-project
  Tech: Python, Stable-Baselines3, SUMO, Pandas, NumPy

PDF Extraction Playground

Full-stack multi-model PDF extraction platform (Surya, Docling, MinerU) with PyMuPDF fallback.

- Reached **99% extraction accuracy** and **35% faster** processing with optimized pipelines.
  Automated deployment using Modal and Vercel CI/CD workflows.
  Link: https://pdf-playground-8wlek8vg8-mevin-joses-projects.vercel.app/
  Tech: FastAPI, Next.js, PyMuPDF, Modal, Vercel

AI Voice Assistant for LeetCode

Conversational NLP assistant enabling natural-language problem navigation for LeetCode users.

- Automated 50+ query types and improved understanding accuracy by 30% over rule-based approaches.
- Integrated ElevenLabs conversational models with spaCy for enhanced context comprehension.
  Link: https://github.com/MJenius/Leetcode-Voice-Assistant-AI
  Tech: Python, spaCy, ElevenLabs API

KEY SKILLS

- **Programming Languages:** Python, JavaScript/TypeScript, SQL, C, Java
- **Frameworks & Libraries:** FastAPI, Flask, React, Node.js, Express, Next.js, Pandas, NumPy, PyTorch, TensorFlow
- **AI/ML & Data Science:** Machine Learning, Deep Learning, NLP, Computer Vision, Generative AI, Reinforcement Learning, Model Deployment, Model Monitoring, Evaluation (Precision, Recall, F1, AUROC), Data Pipeline Automation, Data Visualization
- **Software Engineering & Tools:** GitHub Actions, Vercel CI/CD, Modal Auto-Deploy, PyTest, Unit & Integration Testing, Jira (Agile Workflows), REST APIs, SQLite, MongoDB, PostgreSQL, System Design, API Optimization, CI/CD Implementation, Software Quality Assurance
- **Cloud & Analytics:** Microsoft Azure, Tableau, Excel, Google Colab, TensorBoard

CERTIFICATIONS

Google Data Analytics • IBM Generative AI • Meta GenAI • Microsoft Computer Vision • Kaggle ML & DL