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HENSOLDT

Application for AI & LLM Software Engineer

My application is for the AI & LLM Software Engineer position at HENSOLDT. My engineering philosophy centers on system ownership, automation, and scalable execution, treating code as an asset and inefficiency as a structural failure. My cognition is optimized for throughput, consistently building robust, production-ready systems that deliver measurable value.

- I specialize in architecting and deploying self-replacing agentic systems using LangGraph, LangChain, and LangSmith. My focus is on deterministic multi-agent workflows with explicit state control, memory orchestration, and persistent, asynchronous execution. This includes autonomously handling document retrieval, multimodal processing, summarization, and insight generation without runtime LLM dependency. Projects like the AI-Powered Reels Pipeline and the AI Research Assistant demonstrate my capability in building autonomous, cost-efficient, and high-throughput AI solutions.
- My backend stack is centered on Python and FastAPI, complemented by Postgres, Redis, and MongoDB for data persistence. I ensure tight control over memory and pipeline flow in RAG-based architectures using Qdrant or FAISS. My principles enforce modularity, testability, and production readiness, focusing on robust deployments over mere demonstrations. DevOps workflows include Docker for containerization, Git for version control, and CI/CD pipelines for deployment, with systems scaled via GCP to ensure uptime guarantees and reproducible environments.
- I develop models using TensorFlow, PyTorch, and scikit-learn, integrating them into end-to-end pipelines without black-box reliance. My computer vision stack includes OpenCV, FFmpeg, PIL, Real-ESRGAN, CycleGAN, and MediaPipe, applied in real-time video processing and autonomous feedback systems. The Workout Monitoring Robot project exemplifies my ability to integrate computer vision and robotics for real-time, low-latency applications.
- My work ethic prioritizes autonomous infrastructure, long-term leverage, and absolute control over execution environments. If a system does not scale, it is discarded; if it does not generate recurring value without oversight, it is re-architected. This binary approach ensures maximum bandwidth, system durability, and measurable output, aligning with the demands of developing functional prototypes and robust software modules.

My background aligns with HENSOLDT's focus on innovative approaches for data fusion, Artificial Intelligence, and cybersecurity. I am confident my expertise in AI, LLM, backend engineering, and system automation can contribute significantly to your team's objectives. My resume, available at the provided links, provides further detail on my projects and experience. I am eager to discuss how my capabilities can support HENSOLDT's mission.

Warm regards,

Aditya Ghanashyam Ladawa