Aditya Ghanashyam Ladawa

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KAMAX Holding GmbH & Co. KG

Application for Development Internship Position

Your internship opportunity in digitalization for manufacturing aligns precisely with my technical foundation and execution-oriented approach to building production-ready systems. As an AI and backend engineer currently pursuing MSc Data Science at TU Braunschweig, my experience centers on autonomous system architecture, backend development, and scalable application development that directly supports operational workflows.

- Backend Development Excellence: Built production systems using FastAPI, PostgreSQL, MongoDB, and Redis through research assistant role at TU Braunschweig. Designed agent-based biomedical literature processing achieving 60-90% screening automation with 94% metric extraction accuracy. Strong Python foundation enables rapid adaptation to your backend infrastructure and database management requirements.
- IoT and Edge Computing: Developed real-time monitoring systems on Raspberry Pi with sub-100ms latency for workout monitoring robots. Combined hardware integration with real-time data processing, demonstrating capability for IoT Edge Device development that supports manufacturing digitalization through embedded Python systems and sensor integration.
- Full-Stack Application Development: Architected end-to-end systems including multi-agent AI research
 assistant with Next.js frontend interfaces. Experience with JavaScript, React components, and API
 integration provides foundation for frontend development while Python expertise enables seamless
 backend-frontend coordination across your technology stack.
- Production-Ready System Architecture: Built fully automated content pipelines processing 500K+ views
 with 20x efficiency gains and cost reduction to under \$0.15 per output. Focus on system durability,
 scalable execution, and measurable performance aligns with manufacturing environments where reliability
 directly impacts operational success and colleague productivity.

The 3-6 month internship duration provides sufficient time to deliver meaningful contributions to your digitalization initiatives. My systematic approach to building applications that eliminate manual overhead and optimize workflows directly supports colleagues in production environments. Ready to contribute technical execution and learn your AWS technology stack while delivering architectural insight to KAMAX's manufacturing digitalization objectives.

Warm regards,

Aditya Ghanashyam Ladawa