Aditya Ghanashyam Ladawa

Braunschweig, Germany | +49 15510 030840

adityaladawa12@gmail.com | GitHub | LinkedIn

24. July 2025

BSH Hausgeräte GmbH

Application for Working Student Data Analyst Position

The intersection of AI-driven automation and practical manufacturing applications aligns directly with my technical focus and academic trajectory. Currently pursuing MSc Data Science at TU Braunschweig, my experience building production-grade agentic systems and data pipelines positions me to contribute meaningfully to BSH's data and AI-based architecture management initiatives from day one.

- API Development and Integration: Built robust FastAPI architectures with external data source integration, including real-time processing pipelines and LLM client implementations. Recent work includes orchestrating multi-agent systems using LangGraph and LangChain, with emphasis on verification, validation, and deterministic execution flow - directly applicable to BSH's API setup and testing requirements.
- Data Pipeline Architecture: Designed end-to-end automated systems that collect, clean, and process multimodal data at scale. Implemented RAG-based architectures with Qdrant and Redis for efficient data retrieval, achieving 60-90% reduction in manual processing time across biomedical and content generation domains. Experience spans from research literature analysis to real-time video processing pipelines.
- AI Agent Networks and Automation: Developed hierarchical multi-agent systems using LangGraph orchestration, including supervisor agents coordinating specialized teams for code generation, web search, and memory management. Current research assistant project demonstrates practical application of AI agent networks for data analysis and insight generation, with measurable efficiency gains in complex reasoning tasks.
- Web Scraping and Data Collection: Extensive experience with Playwright, Selenium, and spaCy for automated data extraction across diverse platforms. Built production systems that autonomously gather, process, and structure data from multiple sources, with robust error handling and scalable execution frameworks suited for enterprise data collection requirements.

My technical approach emphasizes system reliability, scalable architecture, and measurable outcomes - principles that align with BSH's commitment to advancing household technology through data-driven innovation. The combination of theoretical knowledge from ongoing graduate studies and hands-on experience building production systems positions me to contribute effectively to your data and AI initiatives while continuing to develop expertise in manufacturing applications. Looking forward to discussing how my technical background can support BSH's architecture management objectives.

Warm regards,

Aditya Ghanashyam Ladawa