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Fichtner GmbH & Co. KG

Application for Python Development - Energy SaaS Platform Internship

Currently pursuing MSc Data Science at TU Braunschweig, seeking the Python Development - Energy SaaS Platform internship position. The combination of energy modeling, optimization algorithms, and SaaS architecture aligns directly with experience in building scalable AI systems and backend infrastructure. Fichtner's focus on hybrid energy systems presents an opportunity to apply technical expertise in a domain critical for sustainable infrastructure development.

- Developed production-ready Python systems using NumPy, Pandas, and FastAPI with emphasis on performance optimization and scalable architecture. Built multi-agent AI pipelines processing complex datasets, achieving 94% accuracy in biomedical metric extraction and reducing processing time by 60-90%. Experience includes handling large-scale data operations with PostgreSQL, Redis, and MongoDB backends.
- Architected optimization algorithms and automated pipelines that demonstrate measurable efficiency gains. Created content generation systems reducing production time by 20x while maintaining quality standards. Built computer vision pipelines using TensorFlow and PyTorch for medical scan enhancement, achieving 96% noise reduction in high-resolution outputs.
- Implemented robust software development practices including Git version control, CI/CD pipelines, and Docker containerization across multiple projects. Maintained production systems with uptime guarantees, comprehensive testing frameworks, and modular codebases. Experience with cloud deployment on GCP and automated infrastructure management.
- Applied technical expertise to energy-adjacent domains through data science projects involving time series analysis, predictive modeling, and system optimization. Built trading algorithms using ARIMA, GARCH, and HMM models for market prediction. Demonstrated ability to rapidly adapt technical skills to new domains while maintaining engineering rigor.

The 6-month internship structure with potential master thesis connection aligns with academic timeline and research objectives. Technical foundation in Python, optimization algorithms, and system architecture provides immediate value to the Hybrid Energy Systems SaaS team. Prepared to contribute to energy modeling tools, SaaS architecture decisions, and production code development while advancing expertise in sustainable energy systems.

Warm regards,

Aditya Ghanashyam Ladawa