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Cerence AI

Application for GenAI Research Student Worker Position

Writing to express interest in the GenAI Research Student Worker position at Cerence AI. As an MSc Data Science student at TU Braunschweig with extensive experience in agentic AI systems and automation pipelines, the opportunity to research GenAI applications for improving manual tasks aligns directly with my technical background and research focus. My work centers on building autonomous systems that eliminate human intervention while maintaining production-grade reliability.

- Built production-ready agentic systems using LangGraph and LangChain that autonomously handle document processing, multimodal analysis, and content generation. Developed a biomedical research assistant achieving 94% accuracy in literature analysis while reducing screening time by 60-90%. These systems demonstrate practical GenAI applications for workflow automation that directly translate to Cerence's automation objectives.
- Architected fully automated content pipelines that process, edit, and publish video content with zero human oversight. Achieved 20x reduction in production time and scaled to 500K+ views using coordinated multi-agent workflows. This experience in end-to-end automation provides direct insight into identifying and implementing GenAI solutions for manual task elimination.
- Currently serving as Research Assistant in Data Science at TU Braunschweig, building AI systems for biomedical applications. Designed hierarchical agent architectures with supervisor coordination, memory orchestration, and asynchronous execution. This research experience positions me to identify GenAI opportunities within Cerence's technical landscape and collaborate effectively with engineering teams.
- Developed computer vision pipelines using TensorFlow, PyTorch, and OpenCV for medical imaging enhancement. Built CycleGAN implementations for data harmonization and super-resolution systems achieving 96% noise reduction. Understanding of both generative models and practical deployment constraints enables evaluation of GenAI applications for automotive use cases.

My approach to GenAI research emphasizes measurable automation gains and production viability over theoretical exploration. The combination of hands-on experience building autonomous systems, current research position, and technical fluency in generative architectures provides the foundation needed to identify and develop GenAI solutions that create tangible efficiency improvements. Ready to contribute to Cerence's innovation in automotive AI while advancing GenAI research applications.

Warm regards,

Aditya Ghanashyam Ladawa