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Center for AI Innovation
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At the Center for AI Innovation, we align academic research with real-world industry challenges, offer students valuable learning experiences in the AI domain, and collaborate with eminent researchers and technology developers to integrate cutting-edge AI capabilities into the university's research ecosystem.
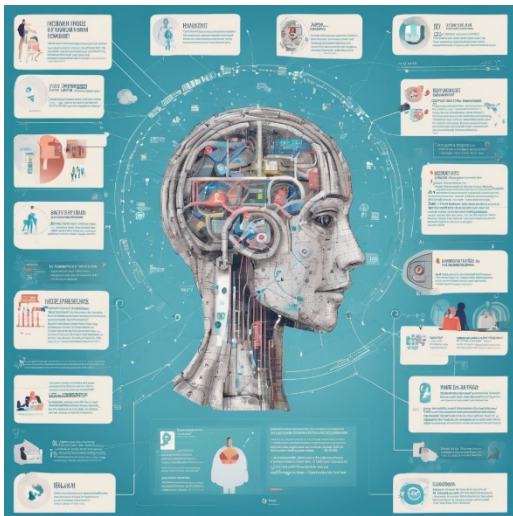

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Keywords

Machine learning, artificial intelligence, translational AI, generative AI, data science, high-performance computing, cloud computing, GPU, FPGA

Research Interests

- Development and application of Machine Learning (ML)-based computer vision methods and tools for image analysis, including medical imaging.
- Application of Large Language Models (LLMs) and development of LLM-based knowledge systems, e.g., intelligent teaching assistants.

Current Projects

- [UIUC.chat](#) – platform for deploying and supporting LLM-based intelligent knowledge systems.
- LLM-based scientific computing workflow management and execution.
- AI-based data acquisition and personalized nutrition advisor.
- Digital twin models of physical infrastructure.

Interest Areas for Collaboration/Future Work

Dr. Kindratenko is interested in collaborative multi-disciplinary projects where he can contribute ML/AI expertise and help to develop tools and methods based on the emerging ML/AI methods. He is also interested in computational aspects, specifically in high-performance computing and special-purpose computer architectures for specialized tasks.