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INDIANA UNIVERSITY

Indiana University is Indiana's flagship public university. Founded in 1820, IU enrolls more than 90,000 undergraduate and graduate students on seven campuses and through numerous online programs. IU is home to the nation's largest medical school and most advanced university research IT operation. In 2020, IU faculty received \$854 million from the NIH, NSF, and other partners to support more than 3,000 research initiatives.

19,694 employees in Indiana

Why is data science/analytics important to your organization?

Data science undergirds much of the research in which IU engages, which is why IU operates one of the most advanced university IT infrastructures in the world. Research in genomics, climate change, hypersonics, cyber threats, and hundreds of other topics depend on high performance computing, massive data storage, and advanced analytics. In addition, IU offers many advanced degrees in data science and analytics and relies heavily on these tools for instruction and administration, as well as research.

What programs at your organization focus on data science and analytics?

The IU <u>Global Network Operations Center</u> (GlobalNOC), established in 1998, is responsible for managing more than 20 research networks on a global scale. These include the N-Wave network for NOAA, networks for 12 U.S. states, and the Internet2 research network for over 300 universities, government agencies, and affiliated organizations. The GlobalNOC is run from parallel state-of-the-art 365x7x24 watch centers in Bloomington and Indianapolis. On January 20, 2020, the university unveiled its third supercomputer, <u>Big Red 200</u>, then the fastest universityowned supercomputer in the nation and specifically designed for the computational challenges of AI, supported by more than 99 petabytes of online research data storage.

IU recently expanded its work on Artificial Intelligence (AI) with two new centers: the <u>Luddy Center for Artificial Intelligence</u> in Bloomington and the <u>Integrative Artificial Intelligence Center</u> in Indianapolis. IU is also home to a wide range of AI research and education including numerous data science and AI degrees and innovative programs focusing on AI ethics and on connections between machine learning and human learning. AI plays a growing role in IU's medical research, especially in the <u>Department of Biostatistics and Health Data Sciences</u>, the <u>Genomic</u> <u>Medicine Center of Excellence</u>, and the <u>Regenstrief Institute</u>.

IU is also using AI increasingly in its national security and cybersecurity work. As an NSA/DHS certified National Center of Academic Excellence in Information Assurance Research and in Information Assurance Education, the university is home to the <u>Research and Education</u> <u>Networking Information Sharing and Analysis Center</u> (REN-ISAC), established in 2003 as one of the 19 industry-specific ISACS recognized by DHS, and the <u>Center for Applied Cybersecurity Research</u> (CACR), home to the <u>NSF Cybersecurity Center of Excellence</u>.

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