

ABSTRACT

Title: Industrial Successes in HPC and AI

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The National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign (UIUC) has addressed grand challenges around the globe for over 30 years. NCSA's Industry Program is the oldest, most decorated, and largest HPC industrial program in the world. The novelty of NCSA's story today is that, thanks in part to the data explosion and advancements in solutions like AI, real and measurable successes are occurring with increasing regularity.

Health care to the bedside, large engine modeling, feeding the planet, ensuring that your personal information is secure, and so much more is aided by advanced computing solutions, and NCSA is involved in these areas and more.

In health care, automotive, agriculture, aerospace, financial services, insurance, government services, and other sectors, HPC is instrumental. HPC's ability to store, manage, and analyze massive datasets is becoming more mainstream, something that is more common every day as companies are able to collect and leverage data like never before. Results at this scale tend to be remarkable, including in business operations efficiency and accuracy as well as return-on-investment (ROI) for industry.

What does all of this mean for our future? As we have seen in recent years, the growth in our ability to collect and subsequently analyze data has resulted in more sophisticated and accurate solutions to significant challenges. The future involves more... more data, more speed to analysis, and more accuracy, all impacting more around us all.

This talk will describe the real challenges and, more importantly, the opportunities that we have experienced and continue to have before us to change the world by helping industry leverage data effectively.