DSICCR Tuesday Seminar Series

Tuesday at Noon, Click Here to Join

DSICCR hardware infrastructure and their utilities

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The Data Science and Informatics Core for Cancer Research (DSICCR: https://sbmi.uth.edu/dsiccr/) developed an advanced computing infrastructure to support cancer research. This robust computing infrastructure is tailored for data science and AI research, and it supports faculty in developing a wide variety of deep learning-based methods. In this presentation, we will introduce each component of this infrastructure and its utility to support cancer research. Topics include:

1. How we use our high-memory SuperMicro TR2T server for sequencing analyses including scRNA-seq
2. How we build bioinformatic pipelines using the workflow description language and docker
3. How we use our 36-node Hadoop cluster for big data analysis, including querying clinical databases with millions of patients and running Spark
4. How we use our Nvidia A100 GPU server to perform NLP analysis on >2 million PubMed abstracts
5. How we perform resource allocation via rootless Docker on our EXXACT TS4 GPU server

Tuesday, December 14, 2021. 12p – 1p. Webcast

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