

DSI DATA SCIENCE INSTITUTE

STRATEGIC SNAPSHOT

Building community, igniting innovative research, and providing strategic workforce development for LLNL's emerging and critical data science discipline.

The field of data science moves quickly. In a range of scientific research areas and through community-building objectives, the DSI is poised to advance LLNL's mission for years to come.

The DSI integrates with LLNL organizations to address the swift growth of data science and its impact on LLNL's national security mission. The Institute is helping to cement LLNL's data science identity and vision in national security through internal and external communication and coordination of activities designed to connect experts from LLNL, academia, industry, and other national laboratories.

We promote and pride ourselves on **full-stack data science** to fully understand and deliver innovative solutions to some of the world's most difficult and important challenges. This means the DSI and its community contribute to the entire hypothesis-experiment-analysis lifecycle, ultimately helping to accelerate scientific discovery.

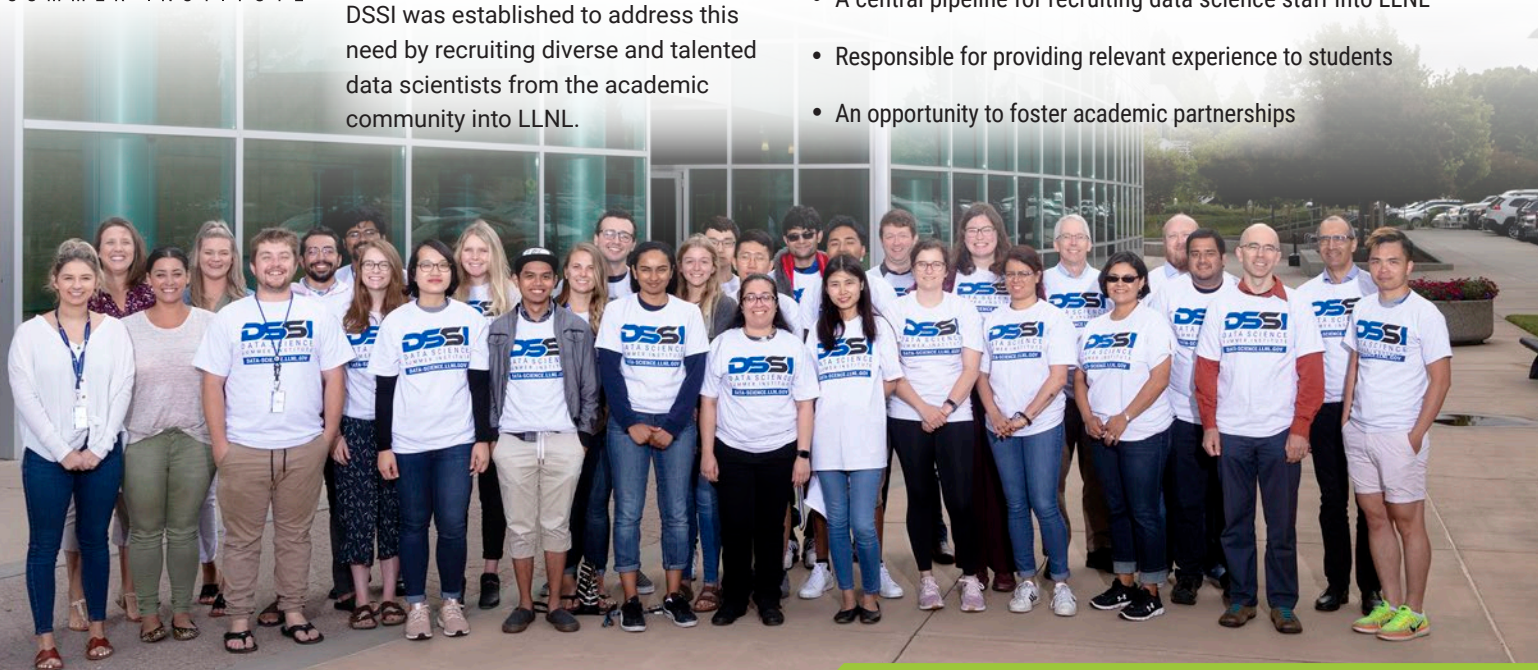
The DSI's vision for shaping the future of data science at LLNL, ultimately weaving data science into the fabric of LLNL's core disciplines, rests of four pillars of action:



As data science is increasingly relevant to LLNL's mission, it is critical for the DSI to develop, grow, and sustain a successful workforce pipeline. The DSSI was established to address this need by recruiting diverse and talented data scientists from the academic community into LLNL.

The DSSI is:

- A 12-week summer internship program for students
- A central pipeline for recruiting data science staff into LLNL
- Responsible for providing relevant experience to students
- An opportunity to foster academic partnerships



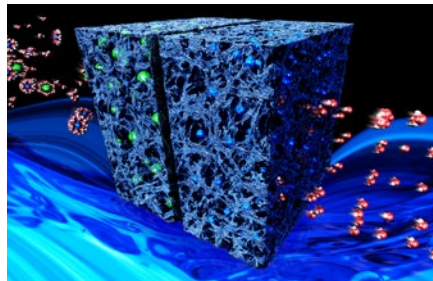
Big Machines. Big Data. Big Ideas.

DATA SCIENCE AT LLNL

LLNL occupies a unique space in data science opportunities:



Home to some of the world's most powerful **supercomputers** and constantly evolving computing ecosystems.



A **data-rich environment** thanks to experimental facilities and complex systems.



A culture of **multidisciplinary teamwork** for solving some of the nation's most challenging problems.

DATA SCIENCE IN ACTION

Key LLNL programs rely on data science techniques to probe particular scientific problems. By investing in such efforts across multiple domains—and by encouraging collaboration through the DSI–LLNL is simultaneously addressing mission-focused challenges and advancing the field itself.

The DSI's Open Data Initiative enables us to share LLNL's rich, challenging, and unique datasets with the larger data science community. Our goal is for these datasets to help support curriculum development, raise awareness around LLNL's data science efforts, foster new collaborations, and be leveraged across other learning opportunities.

