

Texas A&M

# INSTITUTE OF DATA SCIENCE

*The Texas A&M Institute of Data Science (TAMIDS) is a Texas A&M University-wide Institute jointly established by TAMU, Texas A&M Engineering Experiment Station and Texas A&M AgriLife and operates under the Division of Research. The Institute pursues new approaches to data science research, education, operations and partnerships. Our programs cross college boundaries to connect elements of data science from engineering, technology, science and the humanities and inform wider social challenges. These programs create opportunities and resources for students, researchers and faculty who wish to learn about Data Science hands-on through code and examples, or complement their foundational knowledge with computational skills.*



## RESEARCH AFFILIATES

The Data Science Research Affiliates Program aims to increase visibility for Texas A&M data science researchers and involve them in developing and joining activities under the auspices of TAMIDS. The program is open to all Texas A&M faculty (in tenure, professional, instructional, research, and other tracks), research scientists, postdoctoral researchers, administrative and operations staff and professionals whose roles and interests include data science.



## DATA SCIENCE EDUCATION, TRAINING AND OUTREACH

TAMIDS helps students, faculty and researchers acquire skills and expertise in data science through education, training, and support. Current programs include:

- ▶ **Bring You Own Data Workshops:** Available weekly, these workshops are one-on-one online consultancy sessions with a TAMIDS data scientist who can help with formulating approaches to your data science research project and assist with developing code to take advantage of the latest data analytics methods and high-performance computing facilities.
- ▶ **Data Science STEW (Seminars, Tutorials, and Educational Webinars):** TAMIDS hosts events all semester to data science skills and working knowledge. A weekly seminar featuring leading external speakers from a broad range of domains within data science is hosted in conjunction with departments across Texas A&M. Tutorials are led by experts across Texas A&M University in both synchronous as well as recorded sessions, these events help develop skills and expertise in methods, tools and systems used in varied foundational and application domains of data science.

- ▶ **Student Competitions and Outreach:** Held annually in the spring, the Data Challenge requires student teams to work together on real-world problems and develop their professional skills. The Institute also sponsors competitions hosted by student organizations and supports outreach through our Ph.D. Student Ambassador program.

- ▶ **Professional and Course Development:** TAMIDS collaborates with Texas A&M departments, colleges and faculty to develop degree programs, certificates and innovative courses in foundations and applications of data science, including Artificial Intelligence and Machine Learning. The Institute coordinates the Master of Science in Data Science degree, which is a 30-hour on-campus interdisciplinary program operated by the Colleges of Engineering and Arts & Sciences.



## RESEARCH COLLABORATION & PROPOSAL SUPPORT

TAMIDS's data scientists are involved in collaborations with academic, agency and administrative units at Texas A&M that use data science both in fundamental research and to enhance the operations of the University. Additionally, the Institute has developed "building blocks" for the data science ecosystem that can support proposals for extramural funding. These components include:

**SERVICE AND ENABLEMENT:** TAMIDS staff data scientists acting as research collaborators and consultants

**OUTREACH AND EDUCATIONAL DEVELOPMENT:** TAMIDS can help researchers adapt data science educational and training materials, operate training courses in data science, or organize outreach to new communities and target groups.

**INTERDISCIPLINARY COMMUNITY BUILDING:** Ranging from single PI to center-level proposals through workshops and seminars

## THEMATIC LABS

TAMIDS collaborates with dozens of researchers across our eight Thematic Labs working to strengthen Texas A&M's research, improve data science literacy, and tackle challenges impacting society.

- Agriculture Smart Data Lab
- Data Justice Lab
- Operational Data Science Lab
- Scientific Machine Learning (SciML) Lab
- Urban AI Lab
- Digital Twin Lab
- Knowledge Development Lab
- Visceral Intersensory Visualization & Information Design (VIVID) Lab

## GRANTS & SCHOLARSHIPS AVAILABLE

TAMIDS releases calls for proposals throughout the year to support students and researchers. Some opportunities include:

▶ **Workshop Development Grants Program:** TAMIDS solicits proposals for one-day workshops in any area of data science, AI, or machine learning. The program supports community building, stimulates collaboration, and fosters interdisciplinary growth in data science areas among researchers at Texas A&M.

▶ **Student Travel Grant Program:** TAMIDS provides funds to support undergraduate and graduate students' attendance and participation at conferences in any domain of data science. Up to \$500 in travel funds will be awarded under this program.

▶ **Course Development Grant Program:** One-year grants are awarded to support faculty to develop new courses in data science areas or to revamp existing courses to include data science components.

▶ **Visiting Researcher Program:** TAMIDS solicits nominations by prospective TAMU hosts for external researchers to engage with activities in TAMIDS and the wider TAMU Data Science community during long-term full-time visits.

▶ **Research Collaboration Grants:** These one- to two-year grants aim to expand research collaboration with TAMIDS Thematic Labs and support individuals interested in Data Science, AI, and Machine Learning research.

*TAMIDS programs create opportunities and resources for students, researchers and faculty to learn and implement Data Science in their work.*

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Join our mailing list at [u.tamu.edu/tamids-mail](https://u.tamu.edu/tamids-mail) to get our weekly "Data Feed" newsletter and keep up-to-date on all our events and opportunities.

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