



Georgia Tech College of Computing

School of Computational Science and Engineering



Visit us at <https://cse.gatech.edu>

Computational Science and Engineering (CSE)

CSE is an academic discipline devoted to the systematic design, development, study, and application of computer-based models of natural and engineered systems. CSE draws upon concepts from computer science, applied mathematics, science, and engineering, and is an inherently interdisciplinary field where collaboration is key to solving challenging real-world problems. Founded in 2005, the School of CSE is one of the first academic units devoted to the CSE field as a department and offers multiple graduate degree programs.

School of CSE Research

The School of CSE boasts award-winning faculty and students. Their projects have been funded by federal agencies including the NSF, DoE, DoD, NIH, ONR, CDC, AFRL, National Labs, and industry. Numerous real-life applications in science, engineering, social, and medical disciplines have benefited from groundbreaking work in the following core research areas:

High-Performance Computing

Design of practical algorithms and software that run at the absolute limits of scale and speed.

Data Science and Visual Analytics

Creation of new data and visual analytics approaches to transform large and complex datasets into knowledge and actionable information.

Scientific Computing and Simulation

Development of mathematical models to replicate and simulate natural and engineered systems impossible or too difficult to study through experimental means.

Artificial Intelligence and Machine Learning

Construction and study of algorithms that build models and make data-driven predictions and decisions.

Computational Bioscience and Biomedicine

Development algorithms for analysis and interpretation of biological and biomedical data.

Our People

Faculty

- Full-Time Tenure-Track Faculty: **23**
- Joint Appointments: **5**
- Adjunct Appointments: **13**
- CSE Programs Faculty: **133** faculty across **11** Schools at Georgia Tech

Students

- CSE Ph.D. Students: **81**
- CSE M.S. Students: **141**
- School of CSE CS/ML Ph.D. Students: **41**
- School of CSE M.S. Analytics Students: **78**

Our Programs

The School of CSE leads CSE Ph.D. and M.S. programs in which **12** schools across Georgia Tech participate. In addition, the School of CSE participates in **four** Ph.D. programs and **six** M.S. programs:

- Ph.D. in Computational Science and Engineering
- Ph.D. in Computer Science
- Ph.D. in Machine Learning
- Ph.D. in Bioinformatics
- Ph.D. in Bioengineering
- M.S. in Computational Science and Engineering
- M.S. in Computer Science
- M.S. in Analytics
- M.S. in Urban Analytics
- M.S. in Bioengineering
- Online M.S. in Analytics
- Online M.S. in Computer Science

CSE Programs Home Units

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|---|---------------------------------------|
| ■ Computational Science and Engineering | ■ Electrical and Computer Engineering |
| ■ Aerospace Engineering | ■ Industrial and Systems Engineering |
| ■ Biological Sciences | ■ Materials Science and Engineering |
| ■ Biomedical Engineering | ■ Mathematics |
| ■ Chemistry and Biochemistry | ■ Mechanical Engineering |
| ■ Civil and Environmental Engineering | ■ Physics |