CS@Mines prepares students to develop computational innovations that create solutions to problems in a variety of fields. With a commitment to improving computer science education and diversity, this graduate program brings together faculty and students with common interests in applying computational power and thinking to the world. The program offers a Master of Science, with thesis and non-thesis options, and a Doctor of Philosophy. Both of these degree options prepare candidates for exciting and fulfilling careers in industry, government and academia.

**DEGREE OPTIONS**

- **Doctor of Philosophy**: 72 credit hours, comprised of coursework and research credits. PhD students must pass the qualifying exam and complete and successfully defend a satisfactory thesis.

- **Master of Science (thesis based)**: 30 credit hours, comprised of 21 credit hours of coursework plus 9 credit hours of thesis research.

- **Master of Science (non-thesis)**: This option consists of either the project track or the coursework track, both comprised of 30 credit hours total. The project track requires 24 credit hours of coursework, plus 6 credit hours of project credit. The coursework track requires 30 credit hours of coursework.
RESEARCH AREAS

Faculty collaborate with other departments, universities, government organizations and industry partners while working in the following areas:

- Algorithmic robots
- Applied algorithms
- Augmented reality
- Computer science for all
- Cybersecurity
- High-performance computing
- Machine learning
- Networked systems

CORE COURSES

- Algorithms
- Operating Systems
- Advanced Computer Architecture
- Theoretical Foundations of Computer Science
- Introduction to Research Ethics (PhD)

APPLICATION INFORMATION

- A bachelor’s degree with a grade-point average of 3.0 on a 4.0 scale.
- Completion of two semesters of calculus, and computer science courses in programming concepts, data structures, computer organization, software engineering and discrete math.
- Graduate Record Examination (GRE) with quantitative section score of 151 or higher (or 650 on the old scale). Applicants who have graduated from Mines within the past five years are not required to submit GRE scores.
- For international applicants or applicants whose native language is not English, a TOEFL score of 79 or higher (or 550 for the paper-based test, 213 for the computer-based test) is required. In lieu of a TOEFL score, an IELTS score of 6.5 or higher will be accepted.

DOMESTIC APPLICATION DEADLINE: JULY 1

WITH ADDITIONAL QUESTIONS, CONTACT:

Office of Graduate Admissions
303-273-3247 | grad-app@mines.edu

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