



Data Science

UNIVERSITY OF COLORADO BOULDER

MS-DS + AI Certificate (30 credits)

Specializations applying to MS-DS Only:

Data Science Foundations: Statistical Inference
(3 credits)

Data Science Foundations: Data Structures & Algorithms
(3 credits)

Vital Skills for Data Scientists
(4 credits)

Data Mining Foundations & Practice
(3 credits)

Statistical Modeling for Data Science
(3 credits)

Databases
(2 credits)

Specializations applying to MS-DS + AI Certificate:

Machine Learning (3 credits)
(crosslisted - take DTSA versions)

Electives:

DTSA Natural Language Processing (3 credits)
(under development)
(crosslisted - take DTSA versions)

+

6 Outside CSCA Elective Courses
(PICK TWO SPECIALIZATIONS IN BLUE BELOW)

- **Foundations of Autonomous Systems**
- **Introduction to Robotics with Webots**
- **Generative AI (under development)**
- **Reinforcement Learning (under development)**
- **Artificial Intelligence (under development)**

Notes:

- Up to 6 CSCA elective courses can apply to your DS electives except Computing, Ethics, and Society.
- In order for courses to meet the AI certificate + MS-DS outside electives, (up to 6 outside electives allowed), you will need to complete the 'outside electives' survey that you will receive in your email near the end of each session. We apply those courses once your grades post.
- In order to declare the AI certificate, you need to enroll in at least one course required within the certificate using the CS Enrollment Form, linked on their homepage. Be sure to indicate interest in the graduate certificate.
- The Graduate School prohibits students from applying the same credit towards two credentials at the same level, and once courses are applied to a credential and that credential is earned, we cannot then apply those courses to a different same-level credential. Once courses are earned, the credential is auto conferred, so if you are wanting to apply your Machine Learning courses to the AI certificate instead of the DS certificate, you will need to let us know by filling out the certificate check in survey that you will receive near the end of each session.
- Not all AI certificate specializations are fully developed, and unfortunately we do not have estimates on when they will be available.
- Electives within the DS degree can be mixed and matched, whereas in order to complete the AI certificate, you need to complete 4 FULL specializations with no mixing and matching.

Questions? msds-support@colorado.edu