Data Science at Truman

Degree offered

MS

**Master of
Science in Data Science
and Analytic Storytelling**

**Graduate Certificate
in Data Science**

Program **starts in
Fall and Spring**
each year.

Assignments are
flexible and designed
to be relevant to your
current or future
occupation.

What is Data Science?

An online, interdisciplinary degree,
integrating methods and techniques
from Statistics and Computer Science,
while integrating ideas from Design,
Communication, Marketing, Business,
and more.

100% online with:

- asynchronous courses
- weekly meeting with professor
- online office hours
- specialized academic advising
- career coaching services for
  students

Learn concepts using the
R Statistical software language
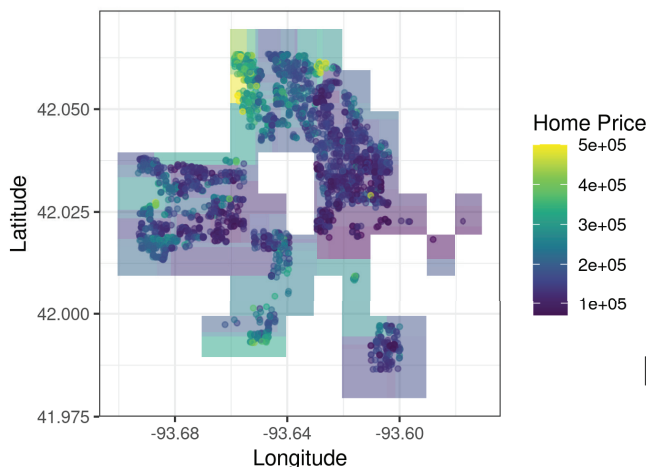with connections to Python,
Spark, and more.

**Eight-week courses offered year
round, a part-time student can
finish in as little as two years.**

Offers a blend of **vocational and
technical skills** with **deeper liberal
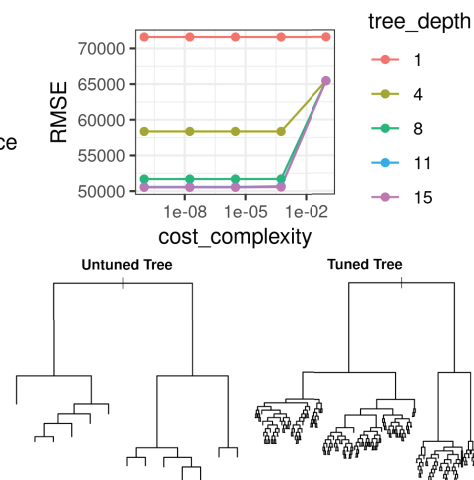arts and sciences knowledge.**

Gain the skills to **gather,
interpret and communicate
data effectively and efficiently.**

**Machine learning offers powerful tools to make data-driven predictions. Students in the
program learn how to create, tune and visualize these model results. Here, decision tree
complexity is tuned to make optimal predictions of home prices in Ames, Iowa.**

Modeled (shaded) vs. Actual (dots) Home Prices
Regression Tree Analysis on Home Prices in Ames, IA

Model Tuning

TRUMAN
STATE UNIVERSITY

DATA SCIENCE
MASTER'S OR CERTIFICATE
(online)

MASTER'S

<div style="background:purple;color:white">DEGREE REQUIREMENTS:</div>

Required Courses: 24 Credits

- **PDAT 610G – Introduction to Data Science** Credits: 3
- **PDAT 611G – Big Data Management** Credits: 3
- **PDAT 613G – Data Mining** Credits: 3
- **PDAT 615G – Machine Learning** Credits: 3
- **PDAT 622G – Narrative, Argument, and Persuasion with Data** Credits: 3
- **PDAT 624G – Principles of Design in Data Visualization** Credits: 3
- **PDAT 625G – Ethics and Data Security** Credits: 3
- **PDAT 630G – Thesis Credit** Credits: 3-6

Elective Courses: To 30 credits total

- **PDAT 617G – Python for Data Science** Credits: 3
- **PDAT 620G – Data Science Capstone** Credits: 3
- **PDAT 626G – Practicum in Data Storytelling** Credits: 3

Total Hours: 30

Students completing the certificate are eligible for an application fee waiver for the master's degree.

CERTIFICATE

<div style="background:purple;color:white">DEGREE REQUIREMENTS:</div>

Required Courses: 15 Credits

- **PDAT 610G – Introduction to Data Science** Credits: 3
- **PDAT 611G – Big Data Management** Credits: 3
- **PDAT 613G – Data Mining** Credits: 3
- **PDAT 615G – Machine Learning** Credits: 3
- **PDAT 620G – Data Science Capstone** Credits: 3

Total Hours: 15

<div style="background:purple;color:white">ADMISSION REQUIREMENTS:</div>

To be considered for admission to Truman's Data Science Programs (Master's and Certificate), students must meet the following requirements:

- Baccalaureate degree from an accredited post-secondary institution (or its international equivalent).

- Students must complete the equivalent of STAT 190-Basic Statistics and CS 170-Introduction to Computer Science I before enrolling in any courses in the program.

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