

## MAJOR IN DATA SCIENCE

COLLEGE OF NATURAL SCIENCE
COMPUTATIONAL MATHEMATICS, SCIENCE AND ENGINEERING (CMSE)
STATISTICS (STT)
COMPUTER SCIENCE ENGINEERING (CSE)
http://cmse.msu.edu/



## STUDENTS WHO COMPLETE AN MSU BACHELOR'S OF SCIENCE IN DATA SCIENCE WILL BE ABLE TO:

- Apply data science to solve real-world problems
- Demonstrate critical thinking and innovation skills in the design of data science techniques as applied to data curation, analysis, algorithm development, descriptive and predictive modeling, visualization, and decision making
- Communicate and collaborate in a variety of professional contexts
- Understand the human and ethical implications of data science and integrate that knowledge into the design and execution of their work



## **COURSE WORK INCLUDES:**

CMSE 201 & 202 Computational Modeling

STT 380	Probability and Stats for Data Science
CMSE 381	Fundamentals of Data Science Methods
CMSE 382	Optimization Methods in Data Science
CSE 331	Algorithms and Data Structures
CSE 404	Intro to Machine Learning
CSE 482	Big Data Analysis

## CAREER OPTIONS

A bachelor's degree in Data Science will prepare students for future careers as data scientists, machine learning engineers, and quantitative scientists. In 2019, according to Indeed.com, machine learning engineer and data scientist are among the top 25 jobs and have had immense increases in the number of postings and base salaries.

Indeed's best jobs of 2019				
Job title	% growth in # of postings, 2015-2018	Average base salary	postings per 1 million total jobs, 2018	
Data Scientist	78%	\$131,389	755	
Machine Learning Engineer	344%	\$146,085	179	
Agile Coach	86%	\$161,377	60	
Senior Product Designer	119%	\$123,759	59	
Computer Vision Engineer	116%	\$158,303	38	
Senior Financial Consultant	66%	\$115,000	23	

The Best Jobs in the U.S.: 2019. Indeed.com, accessed 12/2019



If you have questions about this major, contact:

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