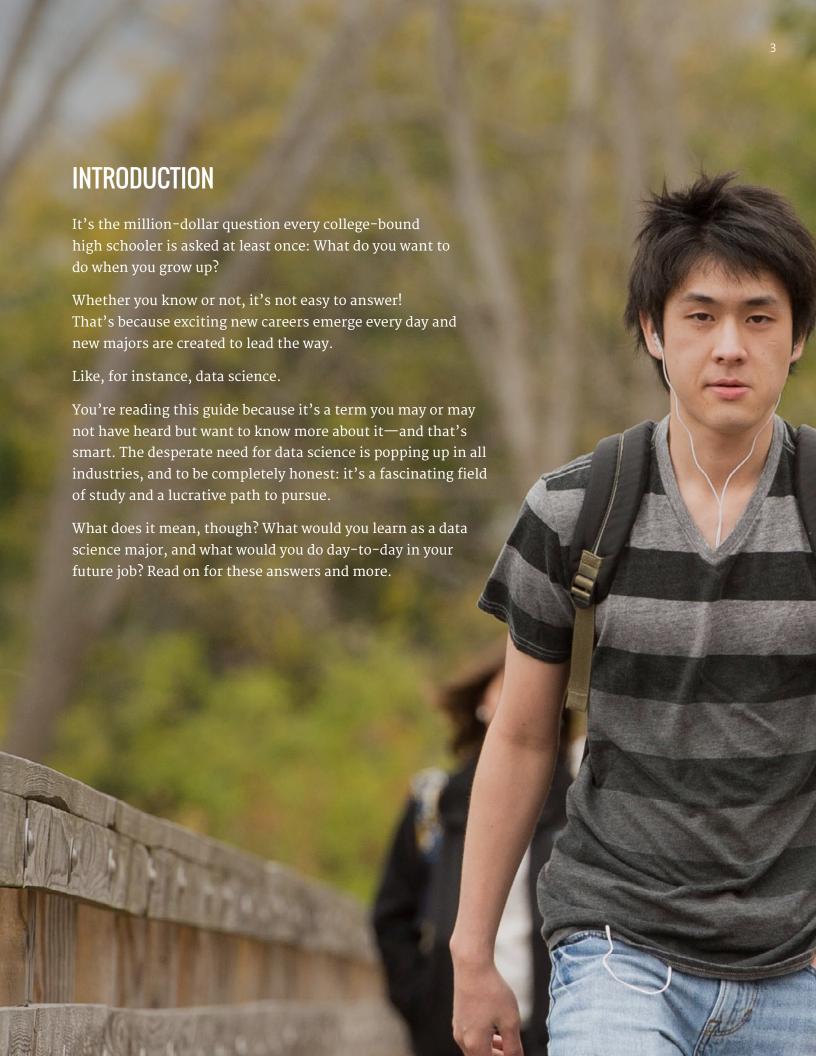


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Harvard Business Review called data scientist the "sexiest job of the 21st century."







IMAGINE YOURSELF USING DATA SCIENCE TO...

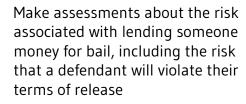




Give yogis feedback on their posture and a score for their practice through yoga mats embedded with sensors

READ MORE: How Is Big Data Used In Practice? 10 Use Cases Everyone Must Read (Bernard Marr & Co.) Analyze biological samples from over 1,000 cancer patients to help your company develop a new drug that allows cancer cells to be removed from a person's body naturally

READ MORE: 7 Ways Data Science Is Reshaping Healthcare (AltexSoft)



READ MORE: 10 Interesting Ways to Use Data Science (Domino)



Discover that men 45-82 who skip breakfast have a higher risk of coronary heart disease

READ MORE: 9 Bizarre and
Surprising Insights from Data
Science (Scientific American)

Figure out why a certain audience always visits your website, but rarely buys the product or service your company offers

READ MORE: <u>How Airbnb Uses Data</u>
Science to Improve Their Product and
Marketing (Kissmetrics Blog)



Find out the world's most sleepdeprived city (Tokyo) or what U.S. states you're more likely to hear "dude," "bro," "buddy" or "fella"

READ MORE: 10 Surprising Big Data Insights From 2014 (Inc.)



Track, prevent and detect injuries in athletes through wearable technology, and using deviations in data to indicate other causes of poor or altered performance to coaches and trainers

READ MORE: 4 Ways Sports Business Intelligence **Is Changing the Game** (Sisense)



Think of all the data that's out there in the world. Google searches, purchase transactions, cell phone activity, Buzzfeed video views, your tweets. On average, the U.S. alone generates **2,657,700 gigabytes of Internet data** every minute. That's a lot of data—or information for businesses to use to make smart decisions. Data science—at its most basic level—is about taking lots of data and making sense of it to solve problems.

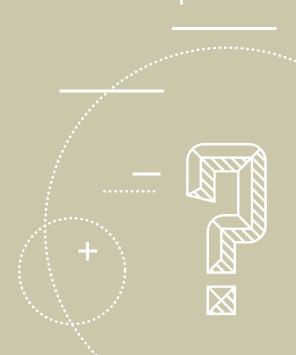
FROM THE WALL STREET JOURNAL:

Data science isn't just about being skilled with numbers. Rather, an effective data scientist also has an ability to see how particular subsets of data may be more useful than others, and what conclusions can be drawn from them.

IN THEIR JOBS, DATA SCIENTISTS MIGHT:

- Collect data and organize it
- Look for patterns and trends, and make observations
- Discover opportunities and solutions
- Test predictions
- Work closely with other departments, like marketing or engineering

"They're part mathematician, part computer scientist and part trend-spotter."- <u>SAS</u>



WHAT'S THE BIG DEAL?

So why is this a major you should consider? Why are people with data science skills so highly in demand? Aside from it paying well (more on that later), the skills of a data scientist—and of related roles like data analyst and data engineer—are invaluable for any company, any industry.



BUSINESSES NEED HELP

FINDING THE RIGHT DATA

The sheer amount of data is so large that being able

to mine the right data for

a business is a skill itself.

Knowing that, you could save

your future employer time,

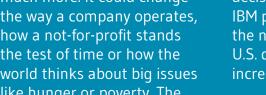
resources and money.



AFFECT THE FUTURE

Data could be used to make decisions on advertising, hiring, marketing, pricing, product development and so much more. It could change the way a company operates, how a not-for-profit stands the test of time or how the world thinks about big issues like hunger or poverty. The applications are endless.

DATA CAN SERIOUSLY

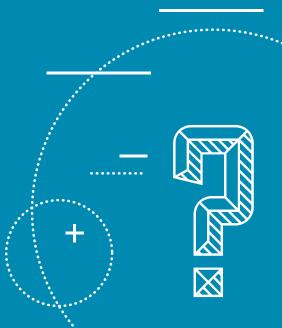


- "By the time entering college students graduate, even more companies will have caught on to the value of data and data science. There will always be more jobs. Someone with the knowledge to be able to store data, retrieve it, understand it and make decisions based on it—that's what data-driven employers look for."
- Michael Tanksi, Siena College Class of 2012 Co-Founder, **Dumbstruck**, an artificial intelligence platform



EMPLOYERS KNOW THE VALUE THAT LIES WITHIN

Nearly 70 percent of **CFOs** surveyed rank data-based insights as the top influence on strategic business decisions. It's no wonder why IBM predicts that by 2020, the number of jobs for all U.S. data professionals will increase to 2,720,000.



THE KINDS OF COURSES YOU'LL TAKE

To acquire the sought-after skills of a data scientist, majoring in data science in college is one of the best things you can do—rather than try to teach yourself after graduation. You'll emerge from school ready to tackle jobs and challenges that don't even exist yet. So what will you learn? These are a few courses Siena College offers its data science majors and minors.



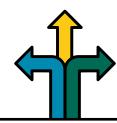
INTRO TO EXPLORATORY DATA ANALYSIS AND VISUALIZATION

In this course, you'll learn what exploratory data science (EDA) means and solve real world data problems. No previous programming experience necessary!



DATA STRUCTURES

Students in this course continue to develop their programming skills using a variety of techniques.



METHODS FOR DECISION MAKING

Calc, basic probability and decision theory with a focus on business applications come together in this introductory course.



PUBLIC OPINION

This course covers public opinion polls and survey techniques, as well as the impact of public opinion on policy makers.



MACHINE LEARNING

A subfield of artificial intelligence, machine learning involves hands-on activities in areas like robotics, computer vision, medical informations and beyond.

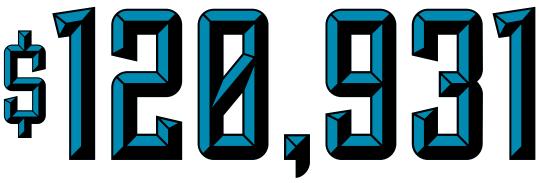


Pursuing data science as a major will set you up for a career path that can take multiple twists and turns. Your new skills can be applied in a host of emerging industries and roles, from sales and marketing to hospitals, manufacturers, and beyond. You could potentially parlay your experience from one field to another, keeping your career fresh and exciting, or choosing the one field that you're passionate about and rising up within it. Plus, you'll likely earn a great salary.



RELATED ROLE:
SENIOR DATA SCIENTIST

\$141,000



ACCORDING TO GLASSDOOR, THE NATIONAL AVERAGE SALARY FOR A DATA SCIENTIST IS \$120,931 IN THE UNITED STATES.

RELATED ROLE:

DATA ANALYST

\$65,000

RELATED ROLE:

DATA SCIENTIST INTERN

\$89,000

RELATED ROLE:

QUANTITATIVE ANALYST

\$94,000

Source: www.glassdoor.com

ABOUT SIENA COLLEGE

Named one of America's Top Colleges by Forbes and one of the MONEY 100 Best Colleges, Siena College is a private college in upstate New York that prepares students to lead lives of meaning and success. Through exceptional academics, market-driven curriculum and unique service opportunities, we send graduates out into the world ready to make a difference and make it big.



Our small classes are 100% faculty-taught so that our professors can really get to know you



Between our 31 majors and 80+ minors, certificates and concentrations, you can truly customize your experience here



Our 20 centers and institutes, like the Stack Center for Innovation and Entrepreneurship or the Center for Undergraduate Research and Creative Activity, take hands-on learning to the next level



Saints intern at impressive companies (Google, NASA, Target, to name a few) and land jobs at places like ESPN, Goldman Sachs and the New York State Senate BLOG POSTS YOU MAY BE INTERESTED IN:

Everything you need to know about Siena's new data science major

<u>Customize your major with</u> <u>any of these concentrations</u>

Where Siena students work across the U.S.

Quiz: What type of colleges should I consider?



We offer three programs relevant to this guide: a B.S. in data science, an advanced graduate certificate in data analytics, and a minor in data science



Saints make \$500,000 more than SUNY alumni in lifetime earnings



Siena offers an MBA program with a track in business analytics. It's the perfect next step after you earn your bachelor's in data science!



WHERE TO GO FOR MORE INFORMATION

Thank you for reading our guide on data science. If you have any questions about this particular major or others—or just want to learn more about Siena College—we're happy to help. Good luck on your college search!

- REQUEST MORE INFORMATION
- CALL US AT 518-783-2423
- SCHEDULE A CAMPUS VISIT



515 Loudon Rd. Loudonville, NY 12211-1462