Online Data Science Masters Degrees in 2019

There are over 30 great universities that offer an online master’s in data science program. Some of these programs offer specializations, such as analytics, artificial intelligence or data engineering. Part-time and full-time enrollment options are available for online data science degrees.

Name recognition is still important with distance learning — people like to see qualifications from top tech schools. So before you sock thousands of dollars into a program, here are some questions to ask to make sure you are enrolling in a valuable data science master’s program.

- **How long has the data science program been offered for?** The longer the better, obviously, though no online programs are going to be THAT old.
- **What skills are covered?** Remember that data science bootcamps and one-off online skills courses are other viable options.
- **Where can I see a demo of the online student experience?** Different schools use different technologies to facilitate online learning. Some have face-to-face real time interaction with classmates while others incorporate discussion post interactions through asynchronous learning opportunities. Great data science programs use either one or both, but personal preferences play a larger role.
- **What resources/data sets will I have access to?** Many high quality online data science programs have research centers with entrepreneur programs, private/public partnerships, labs, incubators and sponsored competitions.
- **Will I be working with companies on real-world practicums?** Ask to see examples of student projects and talk to data science alumni about the experience. Some top schools have partnerships or agreements with companies to help students thrive in the industry.
• Do you have job placement information for the most recent class of graduates? They should!

Trying to decide which data science master’s degree is best for you? As a general gauge of quality, you can also look at university rankings in quantitative analysis, computer science and statistics as well as review any awards for online offerings. There’s no U.S. News & World Report ranking specifically targeted at data science, but there is a list of Best Online Graduate Computer Information Technology Programs.

Featured Schools

Sponsored Online Master's Programs

Learn More Southern Methodist University

Online Master of Science in Data Science

Earn your M.S. in Data Science online in 20 months from SMU - ranked a Top National University by US News. Bachelor's degree required.

* GRE waivers available for experienced applicants

Sponsored Online Master's Programs

What is an online master’s in data science?

Online data science programs aren’t your only option, especially if you live in a big city. You could consider a part-time, on-campus degree. Or you could look at hybrid programs that mix online coursework with evening and weekend classes. Not sure which one is right for you? Consider the following factors when you’re deciding on the best online data science degree for you:

What to Expect
Admissions criteria for online data science degrees and certificates are all over the map, so make sure the program fits perfectly to your skill level.

Programs typically include a blend of core courses and electives. Multimedia lectures, discussion boards, video conferencing, group project work and virtual office hours are some common elements.

Occasionally, some online masters programs will expect you come to campus at some point (or points) during your study. Sometimes it’s a handful of weekends, and sometimes it’s a longer, more concentrated session. Certain schools will have a kick-off and a final reunion week. Be sure to confirm what’s required.

**Curriculum**

Your online data science coursework should be just as demanding as traditional ones, if not more. To get the most value from your online data science degree, coursework should be just as demanding as traditional coursework. Some of the best masters programs will have:

- Hard deadlines and accountability markers (e.g. class presentations) will keep you on track.
- Team-based practicums and chat rooms will help you build career contacts.
- e-Portfolios will impress future employers.

Compare the online data science curriculum with the university’s campus offering. If it’s radically different, ask yourself: Is this the best option for me?

**Faculty**

Teaching quality is incredibly important, especially when it’s not face-to-face. Most top schools have faculty that teach students the practical skills they need through an experiential learning process. Read up on the data
science faculty profiles — these folks should be some of the same people teaching campus programs.

- If they’re full-time, tenured professors, are they working on cutting-edge research or collaborating with campus partners (e.g. IBM)? Have they won data science awards or research fellowships? You want folks who know what’s happening beyond the ivory walls.
- If they’re part-time, are they leading data projects in real companies? Do they have experience with start-ups and incubators? Again, you want people who understand today’s landscape.

Networking

Along with the brand name (e.g. MIT), networking is a HUGE part of the reason students opt for university programs over alternatives. That casual chat in the hall or a coffee with your professor may just lead to an AI project or a government contract.

It can be harder to build relationships in an online setting, but it’s not impossible.

- Top data science schools will typically have networking events. Look for programs that incorporate networking opportunities, corporate days, guest speakers and/or on-campus visits.
- Think about whether a program in a tech hub (e.g. the Bay Area) or a foreign city (e.g. London) might help you forge new business contacts.
- Examine the class profile to see whom you’ll be meeting.

Goals

It’s worthwhile thinking about long-term goals. Why are you doing this? Do you just want certain skills (if so, do you really need a degree)? Will an academic qualification improve your job prospects? Do you like structure and personal communication? Or do you prefer independent learning?
Remember that an online degree bears just the same weight as a campus degree on your resume. If you feel it’s worth the investment, don’t be afraid to go for it.

**Other Related Online Degree Programs**

This page focuses on pure data science programs. You can find best online programs in closely related areas on other pages of our site:

- [Masters in Business Analytics Online](#)
- [Online Masters in Computer Science](#)
- [Online Masters in Computer Engineering](#)
- [Online Masters in Cybersecurity](#)
- [Masters in Information Systems Online](#)
- [Masters in Business Intelligence](#)
- [MBA in Analytics Programs](#)
- [Data Science Certificates](#)
- [PhD in Data Science](#)

**List of Online Master’s in Data Science Programs**

We found 34 universities in our directory offering online master’s in data science programs. If you represent a university and would like to contact us about editing any of our listings, or adding new programs, please send an email to info@mastersindatascience.org.

**Master of Science in Applied Data Science**

**DELIVERY:** Online

**LENGTH:** 36 Credits

The online Master of Science in Applied Data Science at Syracuse University is an interdisciplinary program offered by the School of
Information Studies and the Martin J. Whitman School of Management. The curriculum requires 36 credits, including electives that allow candidates to develop deep knowledge in their area of specialty. Students must compile a portfolio of projects to submit for faculty review. Online course content focuses on collaboration and includes face-to-face classes, project-based work, and 24/7 access to materials. Applicants must have a bachelor’s degree and must submit transcripts, GRE scores, a personal statement, resume, and two recommendations. Applicants who have an undergrad GPA of 3.3 or higher, a master’s degree, or four years of related professional experience can waive the GRE requirement.

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**Online MS in Data Science**

**DELIVERY:** Online

**LENGTH:** 48-60 Credits

The online Master of Science in Data Science from the University of Denver Ritchie School prepares students to build the tools that collect data and use evaluation strategies to make critical business, research, and policy decisions. The program is designed for students of all academic backgrounds and offers four bridge courses to provide them with the programming skills they need to start classes. A bachelor’s degree is required to apply.

ad

**Southern Methodist University**

**Online Master of Science in Data Science**

**DELIVERY:** Online
The Master of Science in Data Science program at Southern Methodist University is designed to prepare and develop professionals in the ever-evolving data science field. The interdisciplinary curriculum helps students develop a comprehensive understanding of computer science, statistics, strategic decision-making, ethics and data visualization. Delivered online, the program includes live weekly class meetings, asynchronous coursework and an in-person immersion experience at SMU’s campuses in Dallas and Plano, Texas. Students can choose an accelerated path and complete the degree in 20 months, although most students take 24 months to finish the degree. Applicants should have a strong technical background, and the college requests a GPA of at least 3.0 in bachelor’s degree work. GRE scores are required unless an applicant has five years of related work experience. Prerequisites include knowledge of computer programming, two courses in calculus and one in statistics. Cohorts start in May, August and January.

University of California-Berkeley

Online Master of Information and Data Science (MIDS)

DELIVERY: Online

LENGTH: 27 units

Designed for data science professionals, the UC Berkeley School of Information’s Master of Information and Data Science (MIDS) prepares students to derive insights from real-world data sets, using the latest tools and analytical methods to interpret and communicate their findings in ways that influence decision-making. The MIDS program features a rigorous, multidisciplinary curriculum focused on problem solving, preparing students
to creatively apply methods of data collection, analysis, and presentation to address and solve problems in areas of human interest, government, and business. In addition to a hands-on, project-based approach to learning that features live, weekly classes and asynchronous coursework, students must also attend one immersion session on Berkeley’s campus. Applicants must have a bachelor’s degree with a GPA above 3.0, as well as an understanding of data structures, linear algebra, algorithms and analysis of algorithms, and a programming language such as Java or Python. Students without this knowledge must complete at least one bridge course. Applicants must submit GMAT or GRE scores, and the admissions committee also considers relevant work experience.

Bay Path University

Longmeadow, Massachusetts

**MS in Applied Data Science from Bay Path University**

**DELIVERY:** Campus or online

**LENGTH:** 36 credits

Bay Path University has an online Master of Science in Applied Data Science that is open to students with a strong background in math or statistics. The program, which can be completed entirely online, is designed as a “bridge program” that gives students the background necessary to be able to collaborate with data scientists and analysts. Classes are offered in an accelerated eight-week format, with students entering the program in October or February. Students typically finish the program in one to two years. Students who take two classes per eight-week session can finish the
degree in one year. Applicants should have a GPA of 3.0 or higher and a degree in math, statistics, computer science, engineering, finance or a related field.

**Bellevue University**

*Master of Science in Data Science from Bellevue University*

**DELCIVERY:** Online

**LENGTH:** 30 Credits

Bellevue University combines coursework in business analytics, visualization, computer science and statistics to create their master of science degree in data science. The 30 credit online data science degree guides students in the application of data science to solve problems and answer questions within their chosen industry.

**Cabrini University**

*Master of Science in Data Science from Cabrini University*

**DELCIVERY:** Online

**LENGTH:** 36 Credits

The online masters of science in data science from Cabrini University teachers students programming languages, an understanding of business enterprise functions, SAS, Hadoop, database administration management and more. In 36 credits, students can complete the online MS program in two years within small class sizes on data visualization, machine learning and data analytics to name a few.

**Colorado Technical University**
Master of Science in Computer Science – Data Science from Colorado Technical University

DELIVERY: Online

LENGTH: 48 Credits

Through Colorado Technical University’s online degree in data science, students will explore the concept of big data, examine data warehouses, discover computer networking and database systems and learn about algorithms for data science. The 48 credit degree can be completed through classes that begin every 8 weeks.

CUNY School of Professional Studies

Master of Science in Data Science from CUNY

DELIVERY: Online

LENGTH: 36 Credits

The online master of science in data science from CUNY School of Professional Studies was previously referred to as the MS in data analytics. In the renamed degree, online students will build portfolios from their knowledge on programming languages, predictive and prescriptive models and complete a capstone project on solutions to real-world problems. The 36 credit program is also offered through bridge courses in R programming, SQL and data science math.

Data ScienceTech Institute
International Executive MSc in Applied Data Science & Big Data from Data ScienceTech Institute

DELIVERY: Online

LENGTH: 18 Months

Data ScienceTech Institute in France has a part-time International Executive MSc in Applied Data Science & Big Data that is delivered online in a format the school refers to as a small private online course program. Courses include pre-recorded material as well as live video meetings with instructors. Information is organized into modules covering information systems, applied data science and big data, business and industrial applications, ethics and law, and engineering projects. Applicants should have a four-year degree with relevant work experience. Classes are available in English, with students entering the program in October or March. Students can complete the program in 18 months. Graduates are prepared to take two certification exams: AWS Certified Solutions Architect – Associate and SAS Enterprise Miner.

MSc in Applied Data Science & Big Data from Data ScienceTech Institute

DELIVERY: Campus or online

LENGTH: 1 year

The Data Science Tech Institute offers a full-time MSc in Applied Data Science & Big Data that requires students to complete six months of classwork and a four-to-six month project. Students are expected to attend classes for about five hours a day and also work on engineering projects assigned with their classes. Online students will complete the program by taking on a data science engineering project for a specific industrial
application. They will research and write a proposal for a solution. Classes are delivered in English in sessions that run from September to April or from March to October. Applicants must have a bachelor’s degree or higher, and those with a four-year degree should have some work experience.

**Drexel University**

Philadelphia, Pennsylvania

**Master of Science in Data Science from Drexel University**

**DELIVERY:** Online

**LENGTH:** 45 Credits

Drexel’s online data science master’s degree if a combination of computer science and information systems with coursework on analytics, mining, visualization and project management and accountability. Delivered by the College of Computing and Informatics, this 45 credit program explored machine and deep learning, database management and human-computer interaction.

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**Elmhurst College**

**M.S. in Data Science from Elmhurst University**

**DELIVERY:** Online

**LENGTH:** 2 years

Students in the Master of Science in Data Science program at Elmhurst College can complete the program in two years of part-time study, with all coursework offered online. The program covers skills in statistics, computer
science, and business to prepare students for a career in data science. All candidates must complete two project-based courses. The college is pursuing accreditation of the program as a Professional Science Master’s degree. Applicants with a bachelor’s degree in any field are welcome to apply. However, all applicants must have passed a basic statistics course and have taken computer science coursework. The college offers online, non-credit courses to meet those prerequisites. Applicants must show at least a year of profession experience and will be interviewed by the program directors.

**Illinois Institute of Technology**

**Master of Data Science from Illinois Institute of Technology**

**DELIVERY:** Online

**LENGTH:** 33 credit hours

Professionals seeking a Master of Data Science can complete the degree online through the Illinois Institute of Technology. The degree requires 33 credits, including a six-credit summer practicum. Applicants should have a bachelor’s degree in a STEM field or in a business field and a GPA of 3.0. Students who do not have a technical background take a placement exam to determine which prerequisite computer science or math classes they have to take. Full-time students typically complete the program in 12 to 16 months, and part-time students can earn the degree in two years. The data science program has partnerships with companies such as Accenture, Accuen and Siemens, who provide software and other tools, guest lecturers, and real-world data for students.

**Indiana University Bloomington**

**Master of Science in Data Science from Indiana University Bloomington**
Students in the Master of Science in Data Science program at Indiana University Bloomington can complete all the required classwork in an online format. Indiana’s 30-credit program includes 12 core credits and 18 elective credits, giving students the flexibility to tailor the program to their interests. The data science program offers two paths, one technical and one for decision-makers. Applicants are not required to have a specific undergraduate degree, but they should have a background in statistics and computer programming languages. Applicants must submit GRE scores, although the university will waive the requirement for students who have relevant work experience or another graduate degree. Full-time students typically finish the degree in two years or less, and all students must complete the degree within five years.

Institute of Technology Blanchardstown

**Master of Science in Computing – Applied Data Science & Analytics**
from Institute of Technology – Blanchardstown

**DELIVERY:** Online

**LENGTH:** 2 years

The Institute of Technology Blanchardstown, in Ireland, offers an online program leading to a Master of Science in Computer in Applied Data Science and Analytics. Courses in this program have a live lecture component, delivered via Adobe Connect, and an asynchronous component of recorded lectures and other resources. The program is designed to meet the needs of two different groups. Students who are new to the discipline will follow a track that requires six taught course modules and a research project. Students who have a background in data science enter a track that
requires three courses and more time in research modules. Applicants should have a bachelor’s degree in computing, IT, or a similar field. Applicants should have an undergrad GPA of 2.5 or higher.

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James Cook University

Townsville City, Australia

Johns Hopkins University

Master of Science in Data Science from Johns Hopkins University

DELIVERY: Campus or online

LENGTH: 10 Courses

Students seeking a Master of Science in Data Science through Johns Hopkins University can earn the degree online. The curriculum requires students to complete 10 courses, with eight required courses and two electives. Candidates must complete all the coursework within five years. Applicants should have a bachelor’s degree in a technical field with a 3.0 or higher GPA. The university may waive the GPA requirement for students with significant relevant work experience. Applicants must submit a detailed work resume, but there is no requirement for GRE scores. Prerequisite undergraduate classes for this program include multivariate calculus; discrete math, differential equations, or linear algebra; courses in Java, C++, or Python with a programming methodology course; and data structures.

Kent State University

Master of Digital Science – Data Science from Kent State University
The online master of digital sciences program at Kent State offers a concentration on data science where students learn more on enterprise architecture, data architecture and analysis methods and technologies. Students will complete 32 credit online degree with or without a thesis option and have the option of attending on-campus courses if desired.

**Lewis University**

**Online Master of Science in Data Science from Lewis University**

**DELIVERY:** Online

**LENGTH:** 36 credit hours

Students enrolled in the online Master of Science in Data Science offered by Lewis University have a choice of concentrations: Computational Biology and Bioinformatics or Computer Science. The program requires students to complete 36 credits, and many students complete the program in 18 to 24 months. Classes are delivered online in eight-week terms, and most students take one or two courses per term. Applicants should have a bachelor’s degree with a GPA of at least 3.0. Applicants are required to have taken college calculus, and all students in the program take several math classes. Additionally, students will be required to work in mathematical programming languages, such as R or Matlab, and in traditional computer programming languages, such as C++, Java or Python.

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**Loyola University Maryland**

**Master of Science in Data Science from Loyola University Maryland**
Loyola University Maryland has a Master of Science in Data Science that is delivered in a mostly hybrid format, combining online work with in-class activities. The program requires students to complete 31 credits, including a one-credit course offered at Loyola’s Columbia Graduate Center in Columbia, Maryland. Applicants must have a bachelor’s degree and must meet prerequisites for introductory courses in statistics and computer science/programming, with a preference for Python. The admissions committee also looks for “mathematical maturity.” Applicants must submit an essay describing how earning the degree will help them fulfill their professional goals. A letter of recommendation and resume may also be submitted. GMAT or GRE scores are not required. Students can complete the program in five semesters.

Merrimack College

North Andover, Massachusetts

**Master of Science in Data Science Merrimack College**

**DELIVERY:** Online

**LENGTH:** 32 Credits

Merrimack College offers a 100-percent online program leading to a Master of Science in Data Science that is a collaboration between the School of Engineering and the School of Business. To earn the degree, students must complete eight courses that combine theory and practice. For the capstone, students focus on computational programming and multi-source analytics. Applicants must have a bachelor’s degree and at least two years of work experience in a related field. All applicants must submit transcripts,
a resume, a personal statement, and two references. Students can enter the program at six points during the year. Classes are delivered in eight-week sessions, with two sessions in the spring, fall, and summer. Students can complete the degree in 15 months.

Northcentral University

Master of Science in Data Science from Northcentral University

DELIVERY: Online

LENGTH: 30 Credits

Northcentral’s online master of science in data science can be completed in 23 months with coursework in the data lifecycle, turning unstructured data into datasets, data mining, and visualization. Students also engage in coursework on ethics, legal work with data and security risks. New classes begin every Monday and the 30 credit degree is completed after 10 courses.

Oklahoma State University-Main Campus

Master of Science in Management Information Systems – Data Science Option from Oklahoma State University

DELIVERY: Campus or Online

LENGTH: 33 Credits

The Spears School of Business at Oklahoma State University offers a Master of Science in Information Systems that has an option to specialize in data science. The option is designed for IT professionals who want to gain skills in analytics and the technical platforms that are used to support business analytics. All courses are available online. Applicants must have an undergraduate degree, but it does not have to be in a business field.
Required application materials include GRE or GMAT scores, three recommendations, a resume, a statement of purpose, and official transcripts. Students are only admitted into the program for the fall semester. The curriculum requires 33 credits, including classes in a common core and 12 credits in the specialization option.

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Regis University

Master of Science in Data Science from Regis University

DELIVERY: Online or campus

LENGTH: 36 Credits

Students seeking a Master of Science in Data Science from Regis University gain a background in data engineering and data analytics. The program is offered in a fully online format, and students may start the program at six points in the year, coinciding with the start of eight-week course terms. The degree requires 36 credits, including 18 core credits, 12 elective credits, and six practicum credits. Applicants should have a bachelor’s degree with a GPA of 3.0 or higher and must have knowledge of statistics and computer programming. The application process requires students to submit an essay/career goals statement, official transcripts, and a resume. Students without the required GPA or work experience have to take a foundation course.

Rochester Institute of Technology

Saint Mary’s College

Online Master of Science in Data Science from Saint Mary’s College

DELIVERY: Online
Students in the online Master of Science in Data Science at Saint Mary’s College must attend one weekend session each August at the campus in Notre Dame, Indiana. The 36-credit program requires students to complete a practicum and make a practicum presentation. The program begins in the fall and can be completed in five to six semesters. Applicants should have a bachelor’s degree in a quantitative field, such as a STEM degree or business with a quantitative emphasis, or work experience in a technical or quantitative area. Applicants should have a GPA of 3.0 or higher and must submit GRE, GMAT or LSAT scores. Core competencies include two semesters of calculus, computer programming (Python is preferred), and familiarity with statistics and linear algebra.

University of California – Los Angeles

Los Angeles, California

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University of California – Riverside

Master of Science in Engineering – Data Science Specialization from University of California – Riverside

DELIVERY: Online

LENGTH: 36 credits

The University of California Riverside offers an entirely online program leading to a Master of Science in Engineering with a specialization in Data Science. Students can complete the nine-course program in a year. The curriculum includes four core courses in engineering management, four courses in data science, and a design project. Applicants must have a
bachelor’s degree in engineering or a related field such as physics or math. Applicants should have work experience as an engineer and must submit GRE or FE scores. Test scores may be waived for students who have at least two years of work experience for an engineering company. Other factors considered in the admissions decision include GPA, professional certifications, and letters of reference.

**University of Illinois at Urbana-Champaign**

**Master of Computer Science in Data Science from University of Illinois**

**DELIVERY:** Online

**LENGTH:** 32 Credits

The University of Illinois at Urbana-Champaign offers a completely online program for its Master of Science in Computer Science’s Data Science Track. The Department of Computer Science offers the degree in partnership with the Department of Statistics and Graduate School of Library and Information Sciences. Applicants must have a bachelor’s degree with a GPA of 3.2 or higher. A degree in computer science is preferred, but applicants with a background in computer programming, data structures, and algorithms are also accepted. Lectures are delivered through the Coursera MOOC platform, but faculty members advise and assess student’s work in an additional “high-engagement” component. The curriculum requires students to complete eight semester-long classes, which will be delivered as two shorter Coursera courses plus the high-engagement component.

**University of Missouri-Columbia**

**Master of Science in Data Science and Analytics from University of Missouri**
DELIVERY: Online

LENGTH: 34 credits

The University of Missouri’s Master of Science in Data Science and Analytics program offers a choice of emphasis areas: Data Journalism, Biotechnology, Strategic Communication, High Performance Computing, Human Centered Design for Data, and Geospatial. Students take classes online and attend a one-week face-to-face intensive session each year on the Missouri campus. Students complete the 34-credit, executive-style program in two years. The curriculum requires 19 credits in core courses, nine credits in the emphasis, three credits in case studies and three credits for a capstone. Applicants must have a bachelor’s degree and submit a resume and letter of interest, but GRE scores are not required. Program partners include IBM, Google, Deloitte, KPMG, The New York Times, and Amazon Web Services.

University of Notre Dame

Master of Science in Data Science from University of Notre Dame

DELIVERY: Online

LENGTH: 21 Months

The University of Notre Dame, in collaboration with AT&T, just launched an innovative and immersive online learning opportunity. Earn your Masters of Science Degree in just 21 months with this flexible, collaborative data science program. The program is designed to equip graduates with Notre Dame edge, analytical precision, a strong quantitative and technical foundation, and the ability to interpret critical insights needed across all industries.

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Featured Online Data Science Programs

**Syracuse University**

Earn your Master’s in Data Science online from Syracuse in as few as 18 months. GRE waivers available.

*Sponsored Data Science Program*

**University of Denver**

Earn University of Denver’s MS in Data Science online. No computer science experience required.

*Sponsored Data Science Program*

**SMU**

Earn an M.S. in Data Science online from SMU. Self-paced statistics and programming bridge courses available.

*Sponsored Data Science Program*

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