As the only undergraduate Data Science degree in the UC system, the major will prepare students for careers in data analysis by combining foundational statistical concepts with computational principles from computer science. UCI’s new Data Science major has a dual emphasis on the principles of both statistics and computer science, with foundational training in statistical and mathematical aspects of data analysis, as well as in the broad principles of computer science (including algorithms, data structures, data management and machine learning). The program teaches students how to utilize their knowledge of statistical and computing principles to analyze and solve real-world data analysis problems. The major is suitable for students interested in either a career in industry or who wish to pursue more specialized graduate study.

As a Data Science major, you have the unique opportunity to take an interdisciplinary course of study that includes classes from all three ICS departments: statistics, computer science and informatics. Classes you will have the opportunity to take as a Data Science student include:

**Programming in C/C++ as a Second Language (ICS)**
An introduction to the lexical, syntactic, semantic and pragmatic characteristics of the C/C++ languages, with an emphasis on object-oriented programming, using standard libraries and programming with manual garbage collection.

**Machine Learning and Data-Mining (Computer Science)**
Learn the principles of machine learning and data mining applied to real-world data sets, with typical applications including spam filtering, object recognition and credit scoring.

**Statistical Methods for Data Analysis (Statistics)**
An exploration of statistical methods for analyzing data from surveys, experiments and cohort studies.

**Information Visualization (Informatics)**
An introduction to interactive visual interfaces for large data sets, including a foundation on the principles of human visual perception and human computer interaction that inform their design.

**WHAT IS DATA SCIENCE?**

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> WHAT WILL YOU LEARN?

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**UCI Donald Bren**
School of Information & Computer Sciences

[www.stat.uci.edu/ugrad/datascience](http://www.stat.uci.edu/ugrad/datascience)
> POSSIBLE CAREERS

// With a degree in Data Science from UCI, you might get a job working in the web and technology industries for companies such as Google, Facebook, Twitter, Microsoft or Samsung.
// You might find a career in finance, working on Wall Street or for a banking or insurance company.
// You might delve into engineering, working for a company like Boeing.
// Or you might use your degree to get a job in the medical or public health field.

> DEMAND FOR DATA SCIENCE

The demand for graduates with skills in both statistics and computer science currently outpaces supply. According to a 2011 McKinsey Global Institute study on big data, demand for individuals with data analysis skills will grow to almost 500,000 individuals by 2018, with a projected shortfall of about 200,000 individuals with deep analytical skills, as well as a shortage of 1.5 million managers and analysts to analyze big data and make decisions.

> UC Irvine’s Data Science Initiative is a broad initiative with a focus on coordinating and linking the activities of researchers and students across campus involved in various aspects of data science. This initiative was founded in 2014 by the Office of the Provost and Executive Vice Chancellor and is supported through the Office of Academic Initiatives. One of the goals of the Data Science Initiative is to support the formation of the new Data Science major. For more information, visit datascience.uci.edu

> MORE INFO

Not sure Data Science is the right major for you? Check out our complete degree programs listing at www.ics.uci.edu/prospective. We offer several minors as well.

Have questions for one of our counselors? Call the Student Affairs Office at 949-824-5156 or email ucounsel@uci.edu.