## University of Southern California VITERBI SCHOOL OF ENGINEERING

## Master of Science in Healthcare Data Science Program Learning Objectives

The purpose of the USC Viterbi School of Engineering Master of Science in Healthcare Data Science is to prepare students for high level professional employment in the healthcare sector that require the use of data science techniques, or to pursue advanced graduate studies focusing on related problems in the field.

- USC students enrolled in the USC Viterbi School of Engineering Master of Science in Communication Data Science program will be integrated into teams working with medical students in healthcare settings as well as courses on clinical workflow and medical technology systems such as image acquisition systems and other healthcare informatics systems.
- USC students enrolled in the USC Viterbi School of Engineering Master of Science in Healthcare Data Science program will learn a range of data science skills such as developing scalable data systems, using state-of-the-art software and infrastructure for data science, designing data analyses with statistical methods, applying machine learning and data mining techniques, designing effective visualizations, and working in multidisciplinary data science teams.
- Upon completion of the USC Viterbi School of Engineering Master of Science in Communication Data Science program, students can pursue career opportunities to lead data science teams at health companies and healthcare provider organizations, perform data analytics in health-related startups and tech companies, and develop emerging technologies revolving around health data.