Over 50 years ago, John Tukey noted that academic statistics could be reformed into a (then unrecognized) science by which one may study and learn from data. Data Science has since evolved into one of the fastest growing academic fields. Motivated by both intellectual and commercial developments, Data Scientists study today’s abundant data in number of different application areas, expanding upon statistics and machine learning to emphasize modeling and prediction of events. In this talk we will provide a brief mathematical introduction to Data Science. We will discuss some of the field’s history and its current state, then overview a few applications with thoughts on the future of Data Science. This survey lecture will be accessible to graduate students and non-specialists who may be thinking of switching fields. (Received January 17, 2017)