

# Introduction to Data Analysis with R

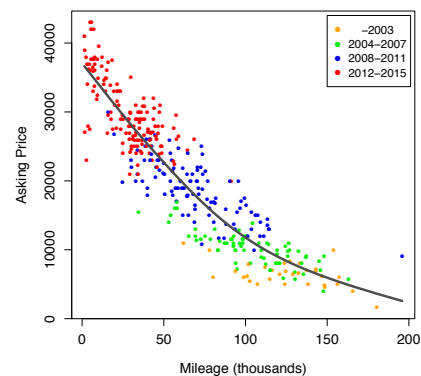
APPM 2720: 3 - 4:15 PM, Monday/Wednesday, Spring 2017

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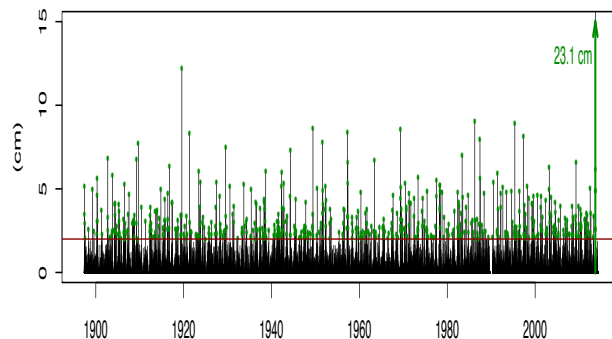
*Data science* is a new field that combines mathematics, computer science, and statistics with the goal of answering questions and gaining new insights from data.

- How should I buy a used car on cars.com?
- Where is the steepest part of a ski slope?
- How is the climate changing in Colorado?
- When will the next flu outbreak occur?
- How do you build a spam filter for email?

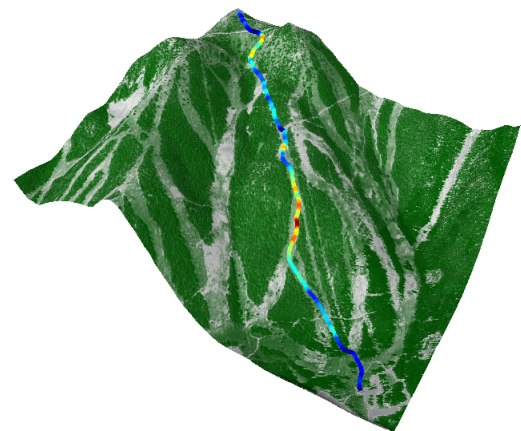
Asking prices for Audi A4s



Daily precipitation amounts for Boulder



Degree of slope for Riflesight Notch Ski Trail  
Mary Jane, Colorado



This course will expose students to practical data analysis and statistics. In the process students will learn how to write programs in the R language, interpret their results, generate figures and reports, and handle large data sets. The course will also introduce students to modern data analysis tools including regression and smoothing, multivariate analysis, clustering, and image analysis. Grading will be based on weekly homework, several take home quizzes and a focused data analysis project. Check out last years course at: <https://github.com/NCAR/DataAnalysis101>