

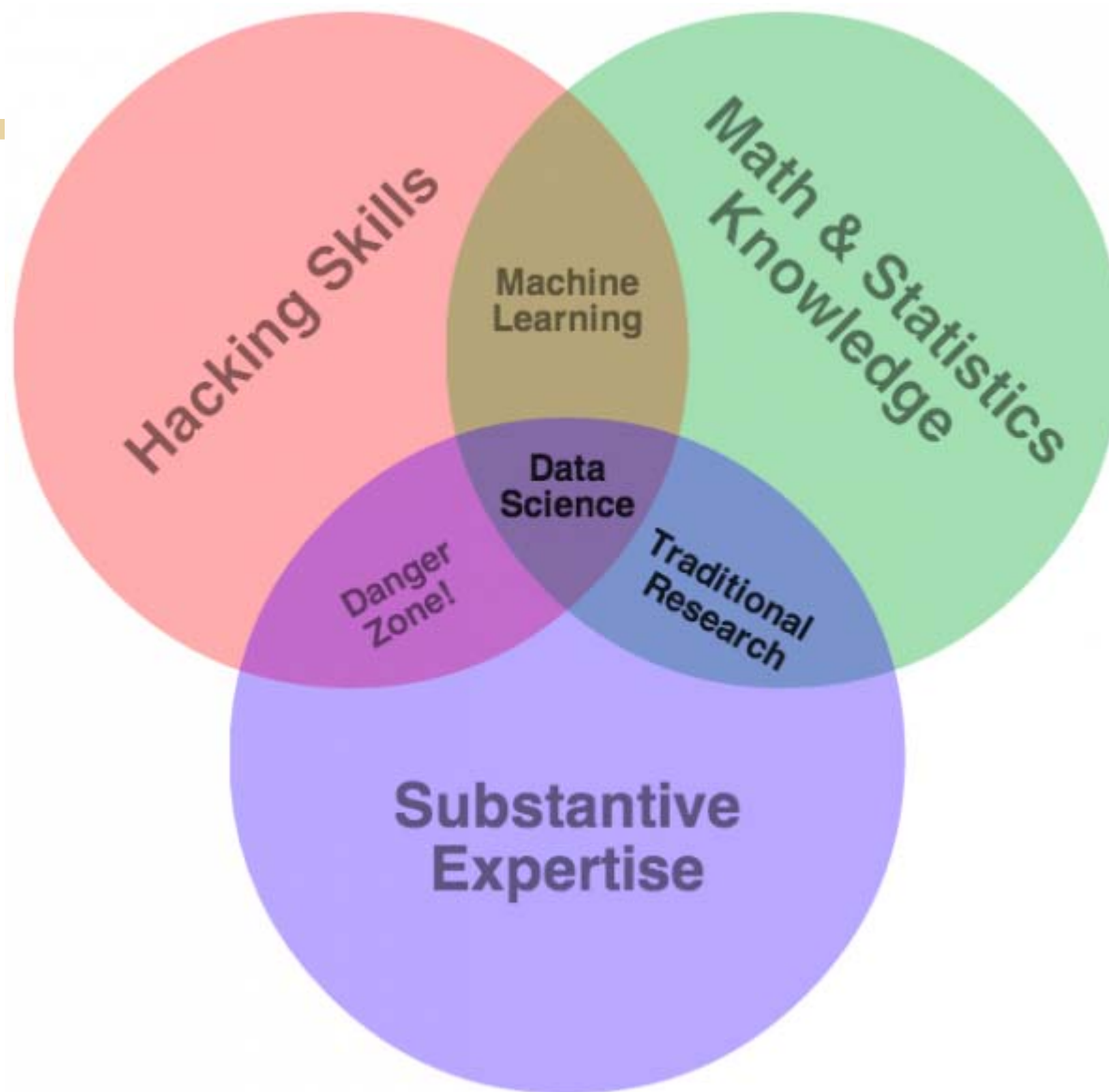
UNIVERSITY *of* WASHINGTON

Data Science UW

Methods for Data Analysis

Introduction and Data Exploration
Lecture 1
Stephen Elston





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Course Purpose

- > This course focuses on essential concepts
- > We are building foundations for your data science skills
- > Course Objectives:
 - Learn methods to explore and understand data.
 - Understand the core concepts of statistics.
 - Understand and implement various statistical procedures in R.
 - Describe and interpret analytical results from common statistical methods.
 - Expand R programming skills to be able to write/test/log code from scratch.
 - Work with structured and unstructured data.





Summary



Things to remember

- > Explore your data with multiple views
- > Data are messy and hard to understand!
- > Simulation of complex distributions
- > Frequentist statistics use point estimates and CIs
- > Bootstrap allows you to model complex distributions
- > Bayes models compute posterior distribution
- > Linear models and regularization
- > Decomposition of time series





The End!



Thank you!

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