Welcome to STA303/STA1002

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STA303/STA1002: Methods of Data Analysis II, Summer 2016
Michael Guerzhoy
About the Class

• Review of p-values, hypothesis testing, confidence intervals, and all that
  • Using all of those concepts correctly

• Focus: analyzing data that doesn’t conform to the assumptions of the Linear Model
  • Disentangling the effects of various covariates from each other on the variable of interest
  • Determining whether the data displays any pattern at all
  • Predicting future data

• Use of modern statistical tools for performing analysis
  • Computer simulation in R for analyzing various statistical techniques (you will use simulation even more if you work in statistics in the future)
  • Data Visualization in R
  • R Markdown for generating reproducible analysis
About the Class

• Common requests
  • Working with financial data – coming up in Project 2
  • Data Science-flavoured assignment – also coming up in Project 2
  • Public Health, Psychology data, sports – still working on finding something suitable
About the class

• **Tentative** schedule (to be finalized after I see how the first two lectures go, by Thursday)
  • Project 1: 10%, due Jul. 11
  • Project 2: 15%, due Aug. 1
  • Midterm: 25% on Monday Jul. 18
  • Exam: 50%, during the examination period
About me

• Michael Guerzhoy is pronounced “Mike-ul ger-JOY”
• Office hours: R6-7, F3-4, or by appointment in BA5244
About me

• Teaching full-time: mostly in Computer Science, but looking forward to teaching Stats!

• Data Science Consultant on the side
  • Clients include: CBC, Homestars.com, and people you’ve never heard of

• MSc in Stats (applied stats and statistical machine learning) and MSc in Comp Sci (machine learning/computer vision)

• Research interests: log-linear (and non-log-linear) models, hierarchical Bayesian models
  • More on that if time permits
About you: Future Plans

Future Plans (incl. multiple responses)

- finance/banking: 11
- data science/analytics: 11
- actuarial: 2
- grad school (science): 3
- grad school (social science): 2
- other: 7