Welcome!
MS in Data Science

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▶ Political methodologist
(Dept of Government, SPA)

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  (Dept of Government, SPA)
- Assoc Director, Center for Data Science
  (AU, SPA)

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- Methods Fellow
  (Office of Evaluation Sciences, US GSA)

Connections

▶ Winter Institute in Data Science

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- RAs with The Lab @ DC

Data Science

Particular intersection of

▶ Statistical practice
▶ Computational tools
▶ Substantive knowledge

▶ Stats: prediction (vs. explanation), algorithms (vs. models)

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- ▶ Computing: addressing problems with data *per se* (size, tidy-ness, un/structure, replicability)

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- ▶ Substance: social science

Goals

▶ Computational tools (R, Python, etc.)
▶ Varied data experience, original work
▶ Apply knowledge in academia, government, industry
▶ Communicate understanding

Requirements

- 10 courses / 30 credits

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- ▶ Catalog ('24-'25): https://tinyurl.com/mr3pt8pm

https://catalog.american.edu/preview_program.php?catoid=22&poid=10903

Courses

- ▶ DATA-612: R
- ▶ DATA-613: Data Science (modeling, Shiny, etc.)
- ▶ STAT-615: Regression
- ▶ STAT-627: Stat Machine Learning
- ▶ One of
  - ▶ GOVT/STAT-618: Bayes
  - ▶ GOVT-650: Political Analysis
- ▶ One of
  - ▶ GOVT-653: Intro Quant Methods in Pol Sci
  - ▶ STAT-614: Stat Methods
- ▶ DATA-793: Capstone
- ▶ Three more courses
  - ▶ (Electives, depend on track)
  - ▶ Substance or methods (computer vision, AI, ML, deep learning, NLP, survey sampling, ...)

Directors

- Jeff Gill: `jeffgill.org`
- Betty Malloy: `malloy@american.edu`

Questions?

Thanks!

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