

MAS DSE 260: Capstone Project

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Step 8: Deploying a Robust and Scalable Solution

Today's Topics

1. Looking Ahead
2. STEP VIII Report : Deploying a Robust and Scalable Solution Report Format
--- DUE 4/28/22

Process Roadmap (260 B)

- Step 6: Modeling and Visualization (4/1/22)
 - REPORT 6: due 4/15
- Step 7: Evaluating and Interpreting Modeling Results (4/15/22)
 - PRESENTATION 3: 4/15
 - REPORT 7: due 4/29
- Step 8: Deploying a Robust and Scalable Solution (4/29/22)
 - REPORT 8: due 5/13
- Step 9: Developing a Communication Plan and Monitoring Dashboard (5/13/22)
 - PRESENTATION 4: 5/13
 - REPORT 9: due 5/27
- Step 10: Optimization -- No class, work on finalizing projects.
 - REPORT 10: due 6/2
 - FINAL REPORT AND POSTER: due 6/2
- FINAL PRESENTATION AND DEMO (6/3/22)

Today's Meeting

- We will discuss your project wrap up plan
- By Monday 5/9
 - Send a project plan with tasks, milestones and deliverables
 - Two 2-week sprint cycles are recommended

What is needed in Step 8?

- Explain the requirements of scalability in your problem and why you should care about them
- Update your solution architecture and data pipelines to ensure scalability
- Define metrics for robustness
- Create an evaluation plan for scalability and robustness
- Report on evaluation

Scalable Data Science

Statistics + Systems + Machine Learning

➔ techniques for analyzing large amounts of data at scale...

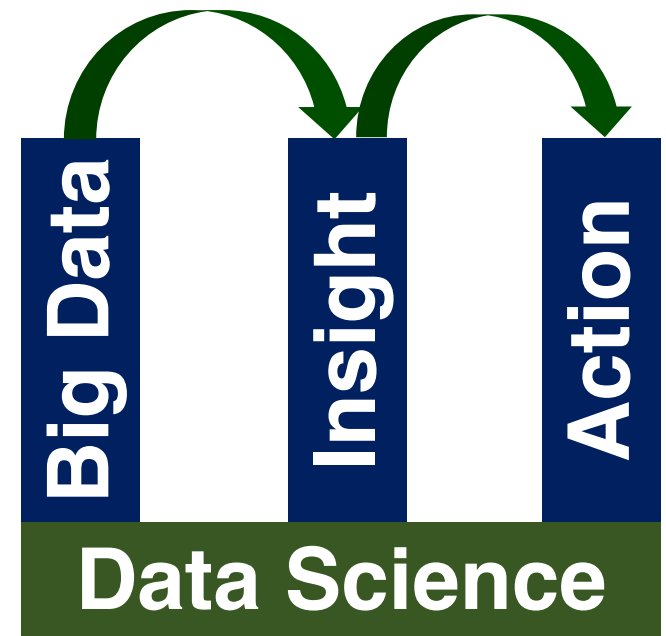
Step VIII Report Guidelines

- Title, team members and advisor(s)
- Summary of Scalability and Robustness Requirements
 - Explain what you mean by scalability, performance, more datasets, model scalability, ...
 - Summarize case studies that includes robustness
 - Illustrate your data pipelines and end-to-end data science process
- Approach
- Evaluation Strategy and Plan
 - How do you define success? What are your metrics?
- Results and Next Steps
- Any major updates to Steps 1 through 7 as a result of Step 8
- Keep it to 4-6 pages
- Due date: 5/13/22 9am

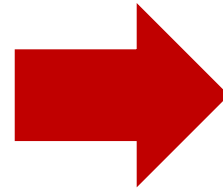
What is needed in Step 9?

- Find the right way to communicate your insights
 - Websites, charts, spreadsheets, dashboards, other programs and business tools
- Operationalize the project and plan for monitoring
 - Focus on measurement and monitoring of effectivity
- Create a story board for communication

Turn insight into a benefit...



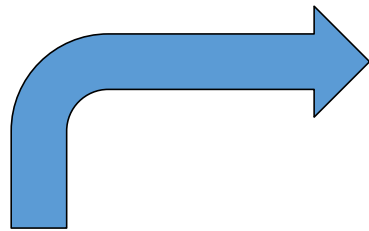
Amplifying the
Value of Data
Related to **X**



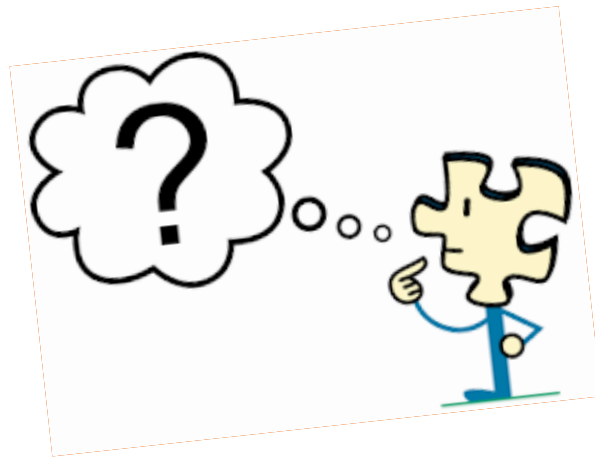
Benefit **Y** for
Science,
Business,
Society or
Education

What would Y be if X was your dataset?

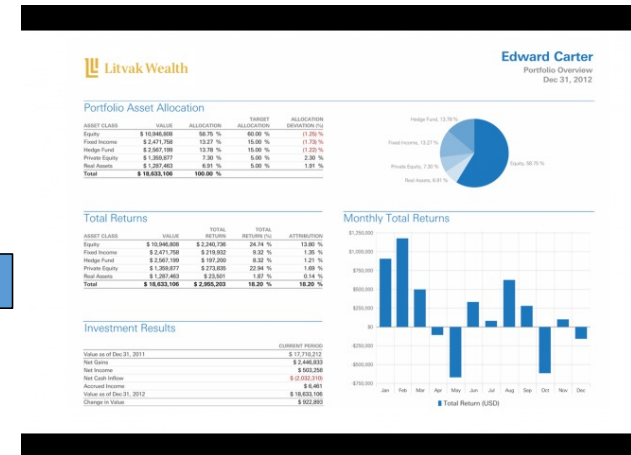
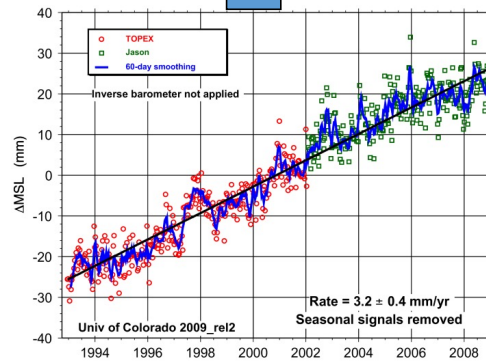
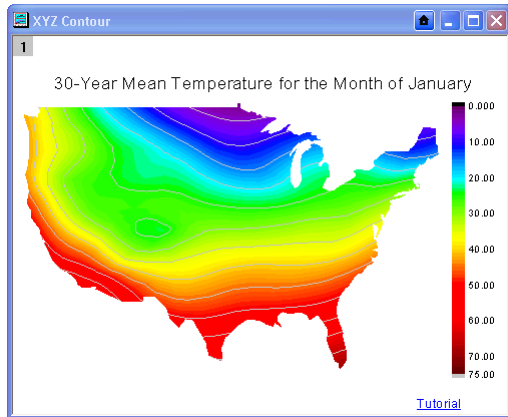
What to Present



What to Present



How to Present



Visualization Tools



Timeline^{JS}

Beautifully crafted timelines that are easy
and intuitive to use.

Presentation 4 – 5/13/22

- Communicate your data product to a general audience
- This will be the last part of your presentation on 6/3.

Questions?

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