

Capstone Project Best Practices

Data Science Immersive

Objective

- What factors make an awesome project?
- How can I structure my project to put me on a pathway I want to take?
- Understand achievable project scope

4 Elements of a Great Project

- Asked a good question
- Technically impressive
- Obvious utility
- Wrapping paper

Why Do We Care?

- Showcase portfolio piece
- Talk about it in interviews, sales pitch, resume, etc.
- Gets you next steps with the ~20 companies you'll interview with at Hiring Day. 50% of students get hired through Galvanize.

First a Couple Stories

- Custom Routing app > Uber job
- Tindarella Shoes > Mapbox job

**Deeper dive on the 4
things**

Asks a Good Question

- Novel/Unique
- Memorable
- Hard

Example good questions?

- Can I recognize tattoo artists based on Instagram photos of tattoos?
- How much collective time/\$/energy would ridesharing save in NYC?
- Can I detect Tea Party bills being introduced into Congress with NLP?

Technically impressive

- Interesting algorithm that you understand
- Software engineering skills

Technically impressive examples

- Researched various algorithms through papers and figured out best approach on your own
- Interesting tools (Word2Vec)
- Serious engineering for data pipeline
- Interesting feature engineering

Obviously useful

- A business cares
- Basically a consumer startup

Obviously useful

- A ranking system for a social network to create invite suggestion lists
- A LTV model, churn analysis, and whale profile for an ecommerce startup
- Prediction of patent expiration
- Tinderellashoes.com
- Tast.io

Wrapping paper

- App or blog post
- Well-documented Github repo with README
- Makes it easy for someone to figure out what you did.
- Demonstrates that you care.

Project Analysis Time!

6 Examples to analyze

- Localebnb (1)
 - <http://www.localebnb.co/>
 - <https://github.com/gscottstukey/localebnb>
- Facial Expression Classifier (1)
 - <http://www.fec.space/fec/>
 - <https://github.com/cmgreen210/facial-expression-project>
- Hunting4Patents (2)
 - <https://github.com/youngstone/Hunting4Patents>
- Cyclitics (2)
 - <http://www.cyclitics.co/>
 - <https://github.com/sethah/CycleAnalysis>
- NeuralArt (3)
 - neuralart.io
 - <https://github.com/oxfordBlueDevil/Painting-Classification>
 - <http://www.slideshare.net/MikeOsorio1/neural-artio-2>
- Always Remember (3)
 - <http://djsensei.github.io/911/>
 - <https://github.com/djsensei/AlwaysRemember>

Questions you'll answer for us?

- Is it a good question?
- Am I impressed with the technical caliber of this person?
- So what?
- How does the person show pride in their work through nice wrapping paper?

Required Further Reading

<http://indigoinsights.co/2015/08/06/tips-tricks-for-your-capstone-project/>