



How to (gracefully) jump start data science initiatives at a start-up

Cho-Nan Tsai, CTO @ Camino Financial

CTO @



Fortune 100

Start-ups

Data Science initiatives are hard!!!!

87% of data science projects never make it into production.

- Venture Beat

77% of businesses report that "business adoption" of big data and AI initiatives continues to represent a big challenge for business.

- New Advantage Survey

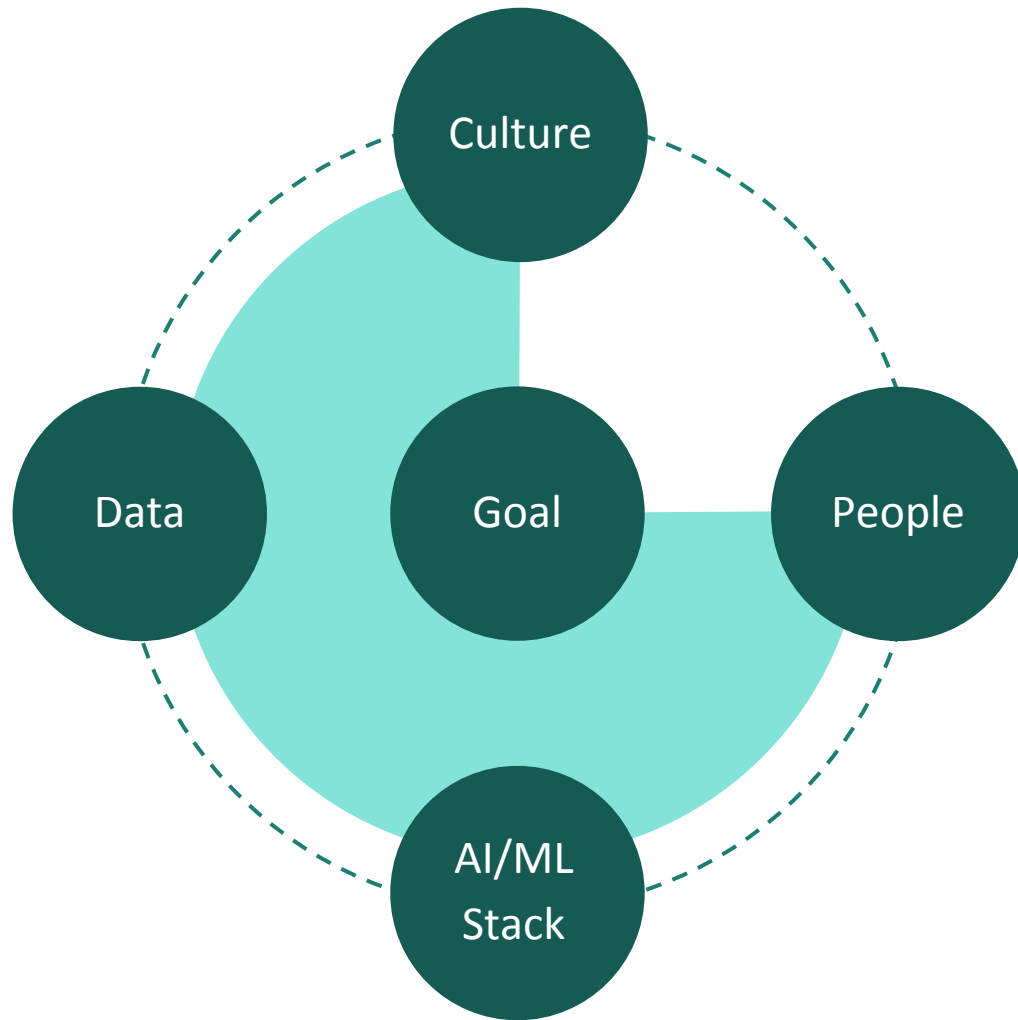
80% of analytics insights will not deliver business outcomes through 2022 and
80% of AI projects will “remain alchemy, run by wizards” through 2020

- Gartner

What can we do about it?

The 5 Golden Pillars of Data Science





- Early initiatives should be tangible, low hanging fruits
- Leadership should have a good understanding of capabilities of ML/AI
- Iterate always but never stall
- Goals should be clearly stated and yet not too broad
- Digital marketing goal examples:
 - Decrease user acquisition cost by X% through better targeting
 - Increase funnel conversion by X% by offering actionable and personalized call-to-action messages



- Your first hire should
 - wear many hats
 - Have an open mind
 - Wear many hats
 - Have a good business sense
 - Can draw conclusions and
 - Do cause-effect analysis
- Setting expectations up front



- Treat data as your first class citizen
- Don't operate on a hunch
- If there is a bigger fish to fry (other than data), you must go for it (like existential threat or finding your product-market fit)



- Watch out for data starvation
- Be creative where you get your data
- Open data initiatives
- Buy data may be OK, but as a last resort. Validate your source.



- Spend the time to set up the right infrastructure first
- Do's before data science analysis
 - Data instrumentation
 - Data catalog
 - Have a ETL pipeline in place (extract-transform-load)
- Data engineering 80% ; Data Science 20% only!
- Protect your bank roll - don't turn on data science services unless you are ready





<https://www.linkedin.com/in/michaeltsai/>

<https://obicho.github.io/talks/>

