The Future of Data Science

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DSC90, Winter 2020

Parts stolen from Emily Robinson's slides "Data Science Demystified"

Part 1: The Present

Josh Wills
@josh_wills

Data Scientist (n.): Person who is better at statistics than any software engineer and better at software engineering than any statistician.

12:55 PM - 3 May 2012

1,710 Retweets 1,454 Likes

52   1.7K   1.5K

Mother Exhaustion from the Haus of Tired
@data_bayes

I'm a Data Scientist which means I do logistic regression, talk about machine learning, and dream about not having to clean data ever again.

James Blair
@Blair09M

"You can do a lot of data science with counting, and occasionally dividing" - @hadleywickham #rstudioconf #rstats

7:51 PM - 3 Feb 2018

33 Retweets 102 Likes

2   33   102

Part 2: The Future

Radical Change Is Coming To Data Science Jobs

Nate Oostendorp Forbes Councils
Forbes Technology Council CommunityVoice ⓘ

https://www.forbes.com/sites/forbestechcouncil/2019/03/01/radical-change-is-coming-to-data-science-jobs/#172f57fddfcc

Radical Change Is Coming To Data Science Jobs

A calculator was once a person. Webmaster was once a hot career.

[A]dvancements in hardware and software took specialized skills and put them into the hands of generalists. While specialist jobs were lost, the democratization of these technologies unleashed waves of innovation, commerce and job creation.
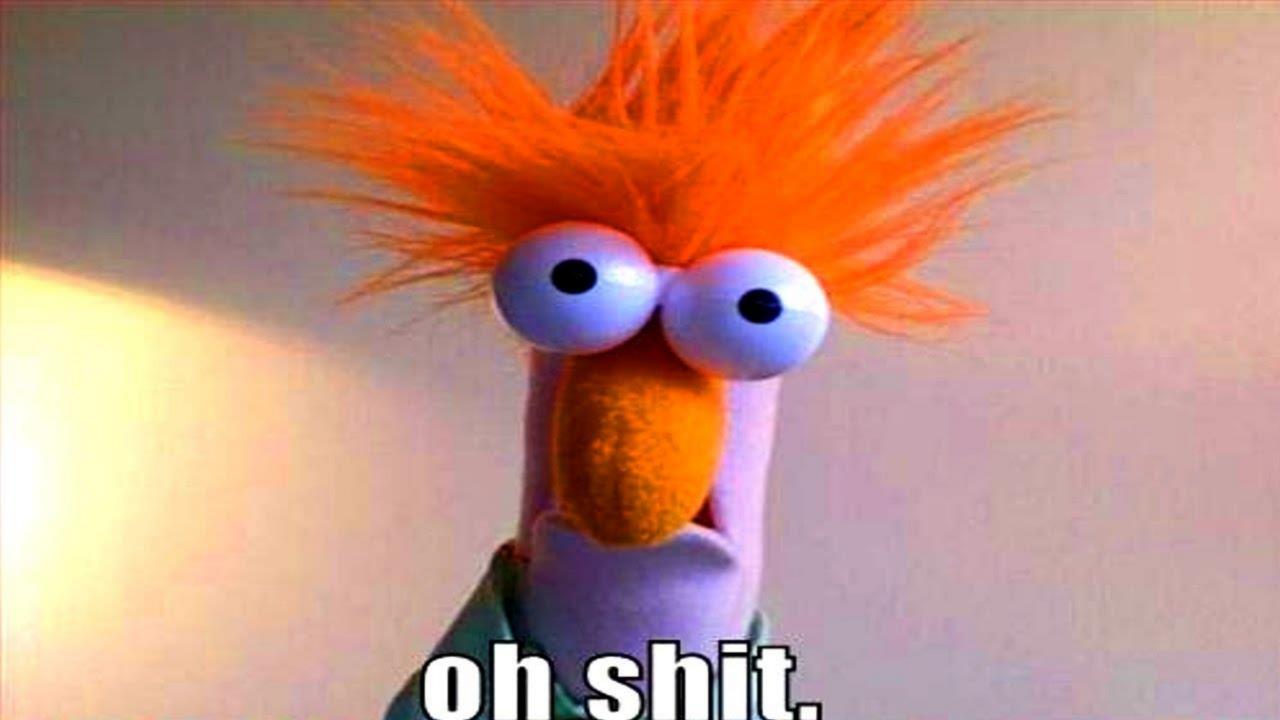
Similarly, I believe the job of data scientist as we know it today will be barely recognizable in five to 10 years....While their data science skills will be a strong career asset, a surprisingly small proportion of them will likely to be working as straight data scientists.

Radical Change Is Coming To Data Science Jobs

When I studied computer science back in the way-back-when, compiler design was a required course. ... It was common to write pieces of commercial applications in machine language for faster performance.

Over the past few decades, successive layers of software functions have been abstracted into higher-level development tools.

Data science is quickly following the same progression.

oh shit.

The Good News:

Drawing conclusions from data is always a good career.

Four paths (none of which is "data scientist"):

- Industry Specialist
  - Bring data science to new industries
- Analytics & Data Visualization
  - Bring data science to less technical people
- Data Engineering
  - Remember what all those data scientists are spending their time on?
- Go Deep (get a PhD)
  - Push the boundaries

Three completely different job descriptions

Data Scientist – Analytics

- Define and evaluate key metrics

- Develop dashboards

- Communicate analyses

- Comfortable in SQL

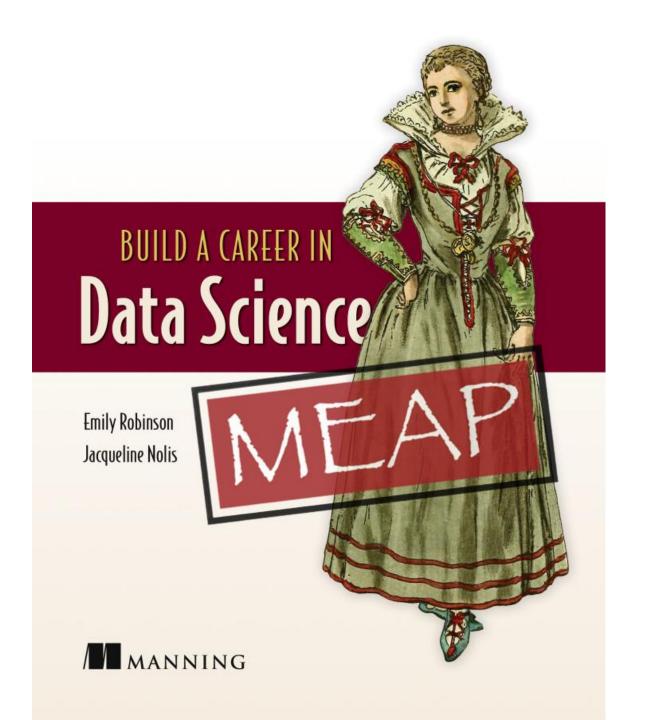- Industry experience

Data Scientist – Algorithms

- Deep Learning techniques

- Natural language processing

- Strong programming skills

- Developing ML models at scale in

Data Scientist – Inference

- Run strategic analysis

- Design experiments

- Improve statistical methodology

- PhD in quantitative field

From Airbnb Careers

BUILD A CAREER IN
Data Science

Emily Robinson
Jacqueline Nolis

MEAP

MANNING