Data Science Bootcamps with reddit

Business Problem

- Imagine yourself as a marketer for a data science boot camp.

  What might you care about?

- How do you know what people are honestly interested in since reviews are public.

Reddit

- Site that hosts any topic imaginable
- High utility since there are numerous subreddits discussing data science, boot camps, and data science boot camps.
- Users are anonymous so opinions shared are more likely to be honest (increase in the validity of comments).
- Good site for asking questions and getting answers. StackOverflow for everything else.
- https://www.reddit.com/r/datascience/search?q=data+science+bootcamp&restrict_sr=on

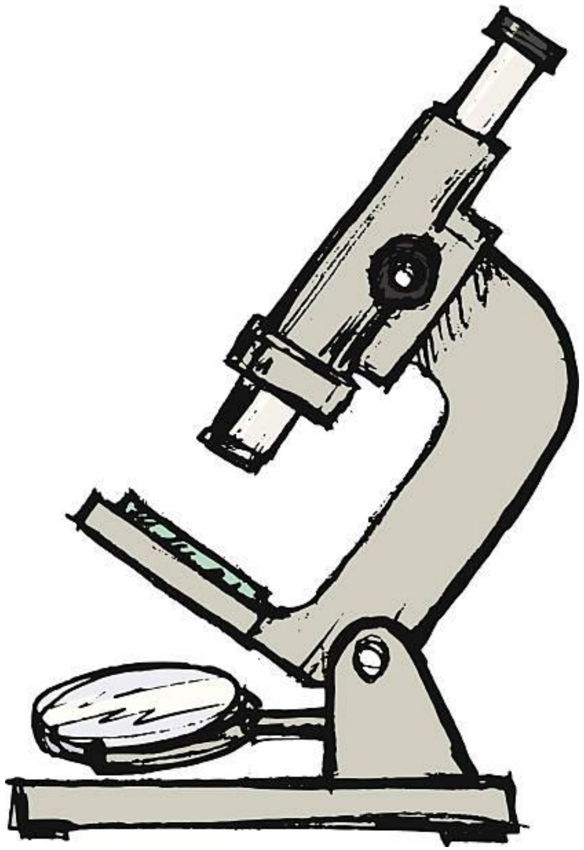
The Tools of the Trade

- Scrapy

A general framework you can install on python.

- Latent Dirichlet Allocation(NLP)
- Unsupervised Learning Algorithm

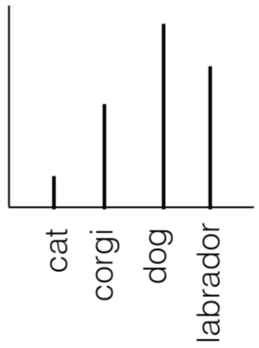
- Probabilistic Model
- The algorithm discovers patterns in the text based upon variation.



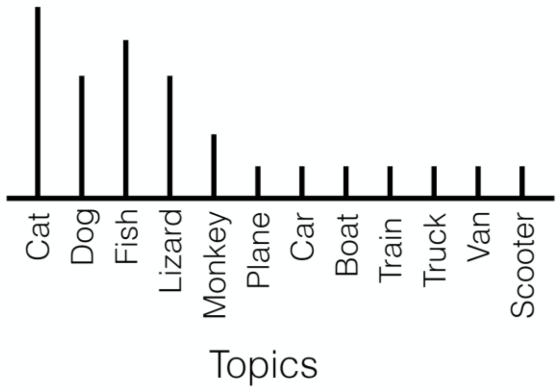
LDA continued

Topics (Z)

- A topic is a probability distribution over words

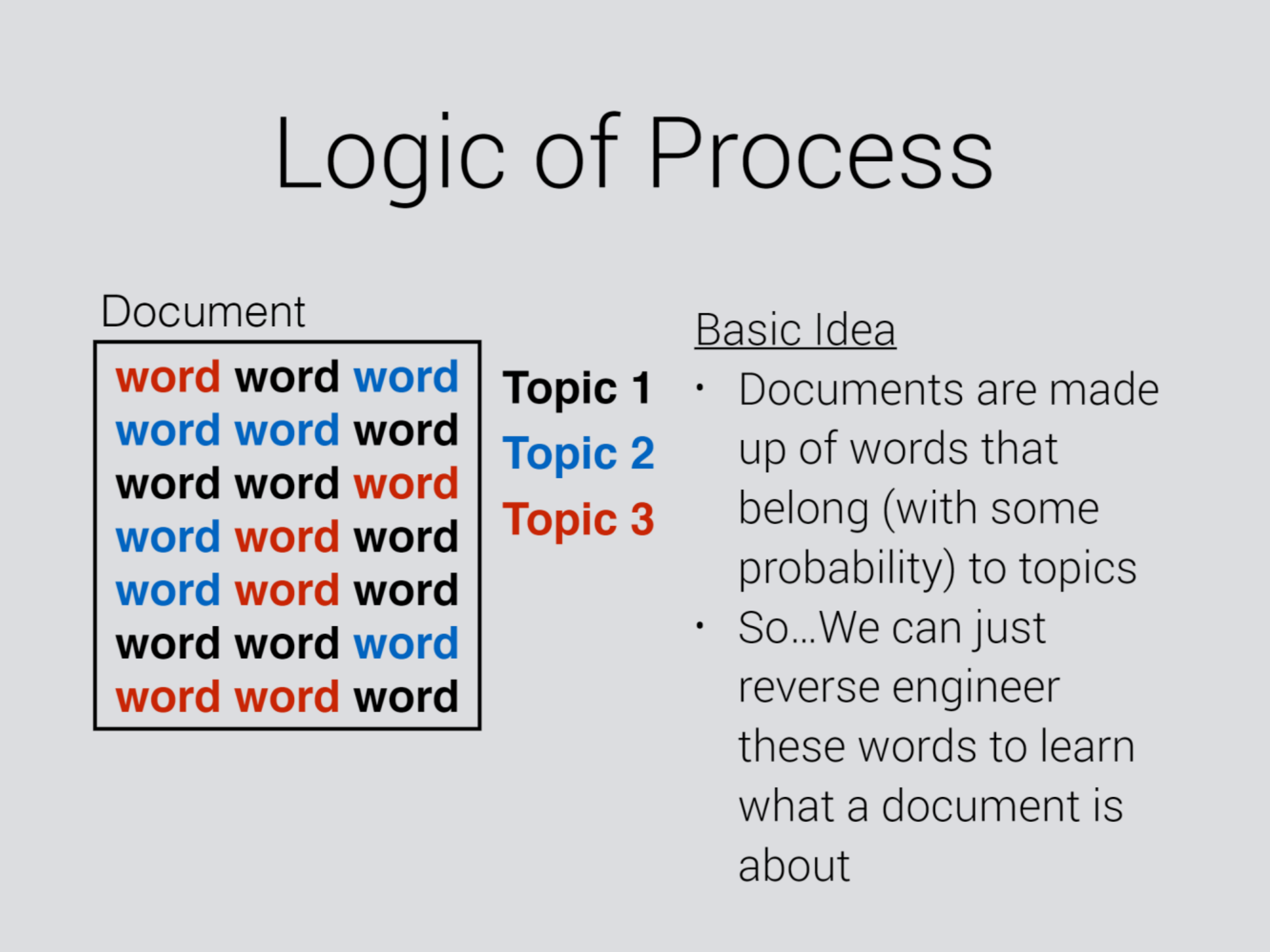


Topic Distribution for a Document



A document can be described by a recipe of topics and “how much” of each topic it contains

LDA continued



Logic of Process

Document

word word word
word word word
word word word
word word word
word word word
word word word
word word word

Topic 1
Topic 2
Topic 3

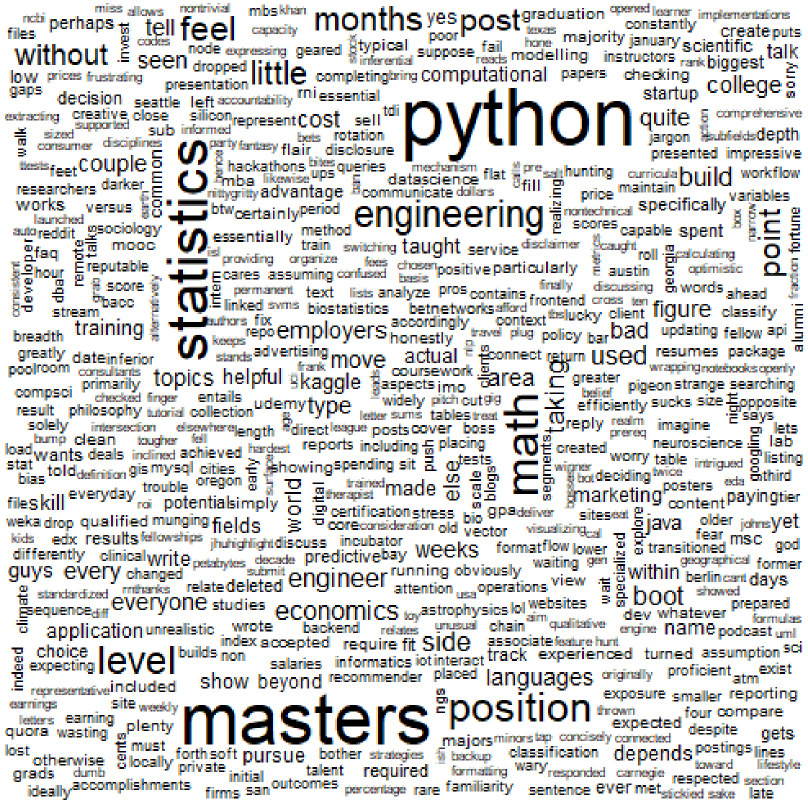
Basic Idea

- Documents are made up of words that belong (with some probability) to topics
- So…We can just reverse engineer these words to learn what a document is about

Word Cloud

122,336 words scraped

Total of 5 page lists



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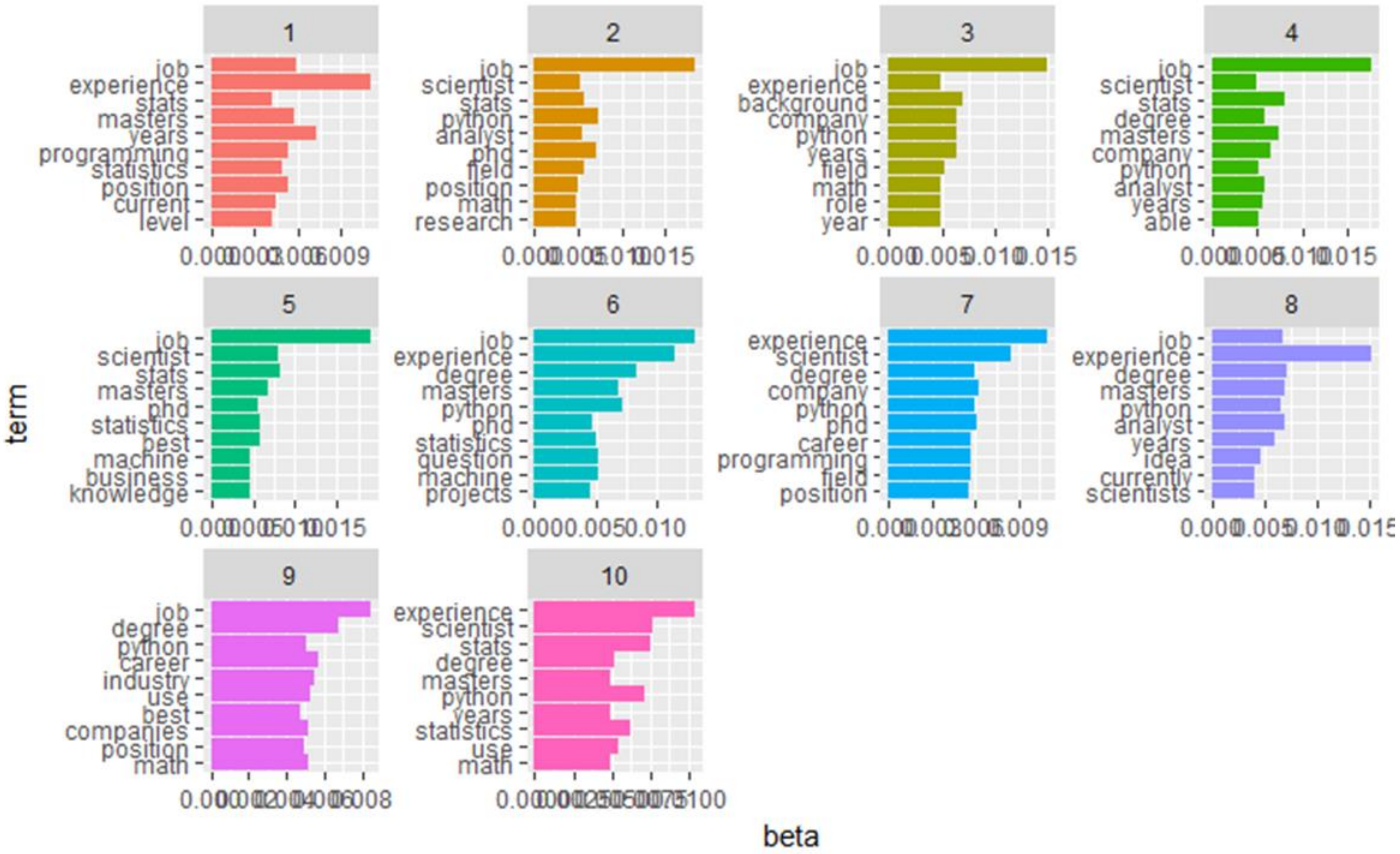
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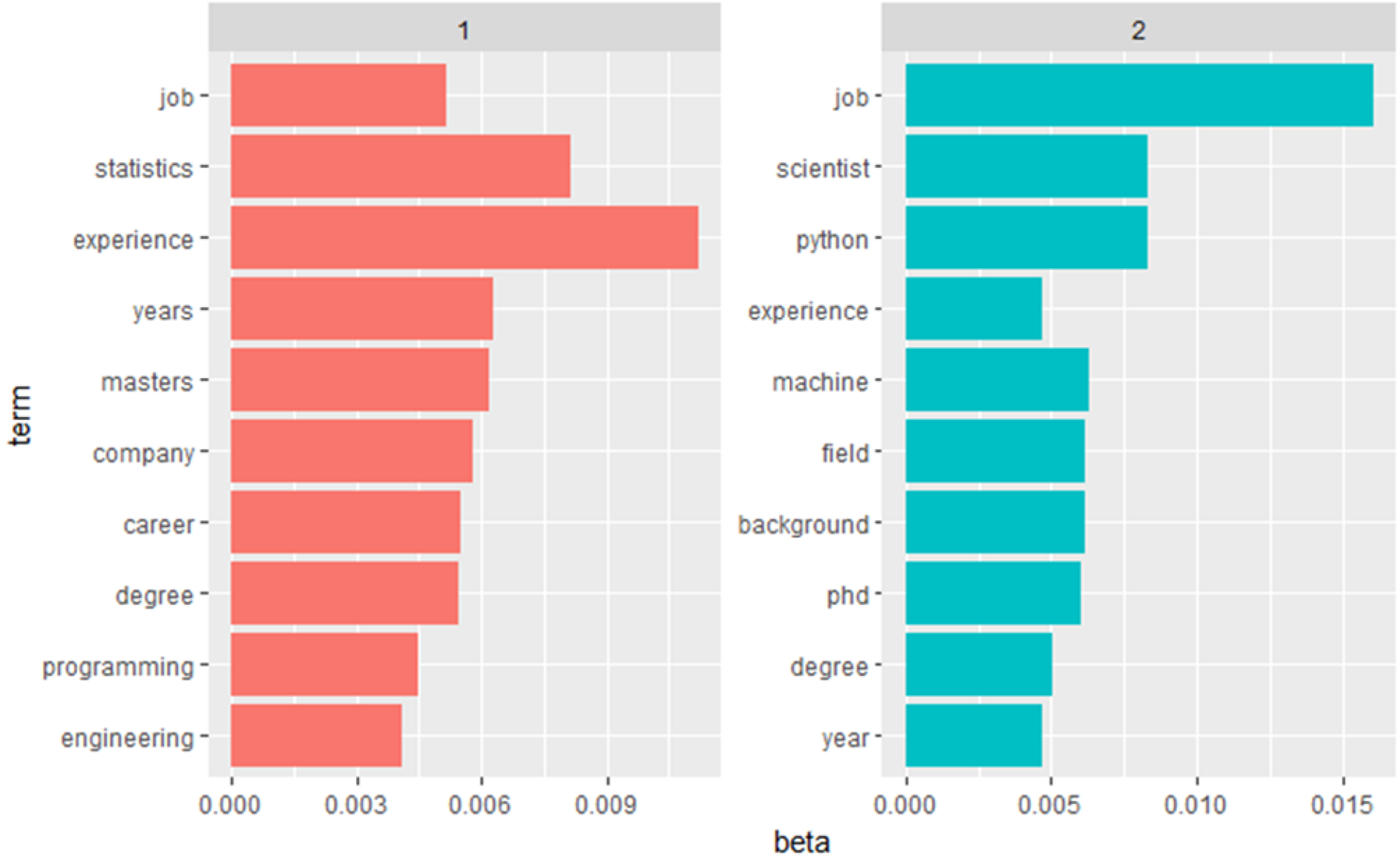
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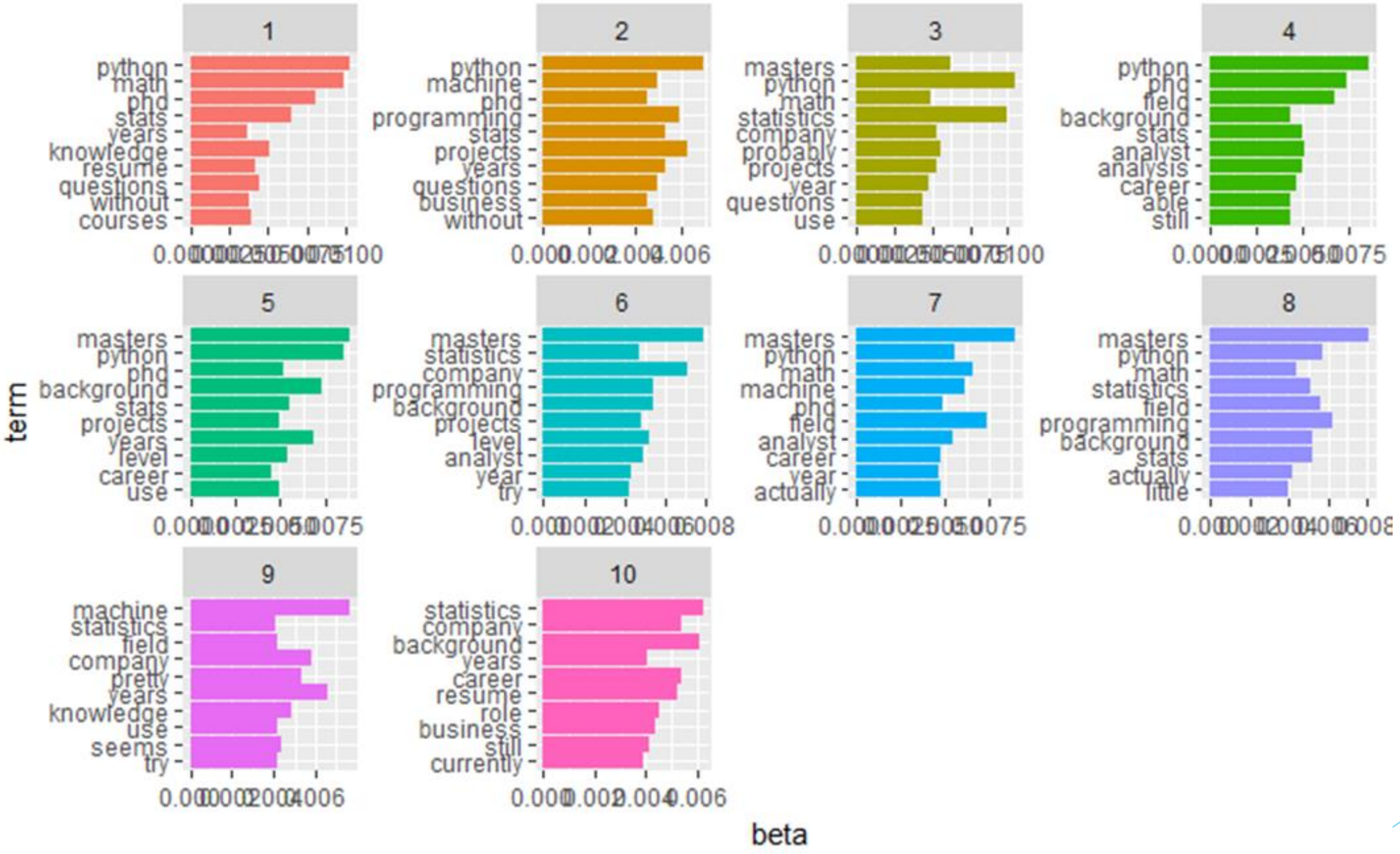
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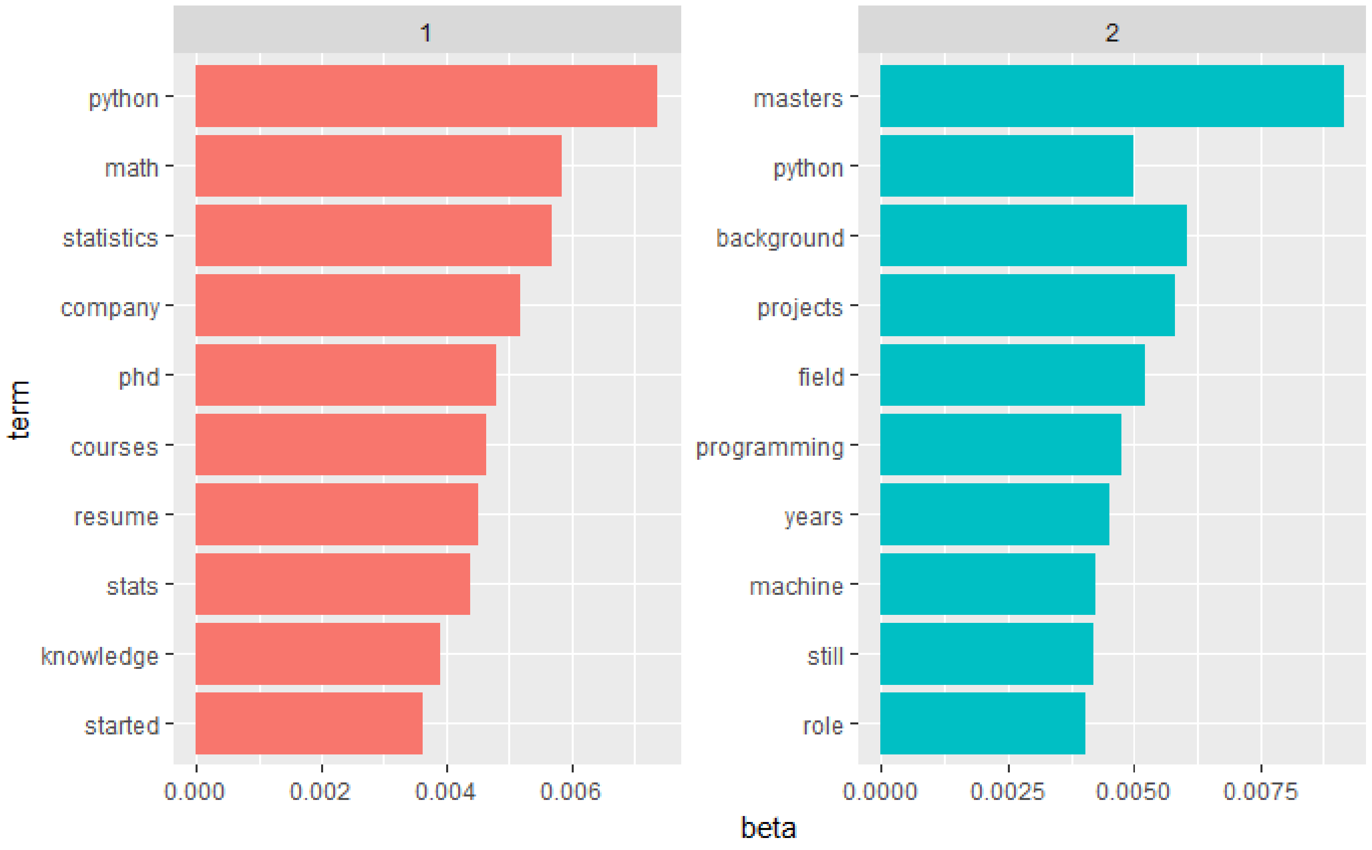
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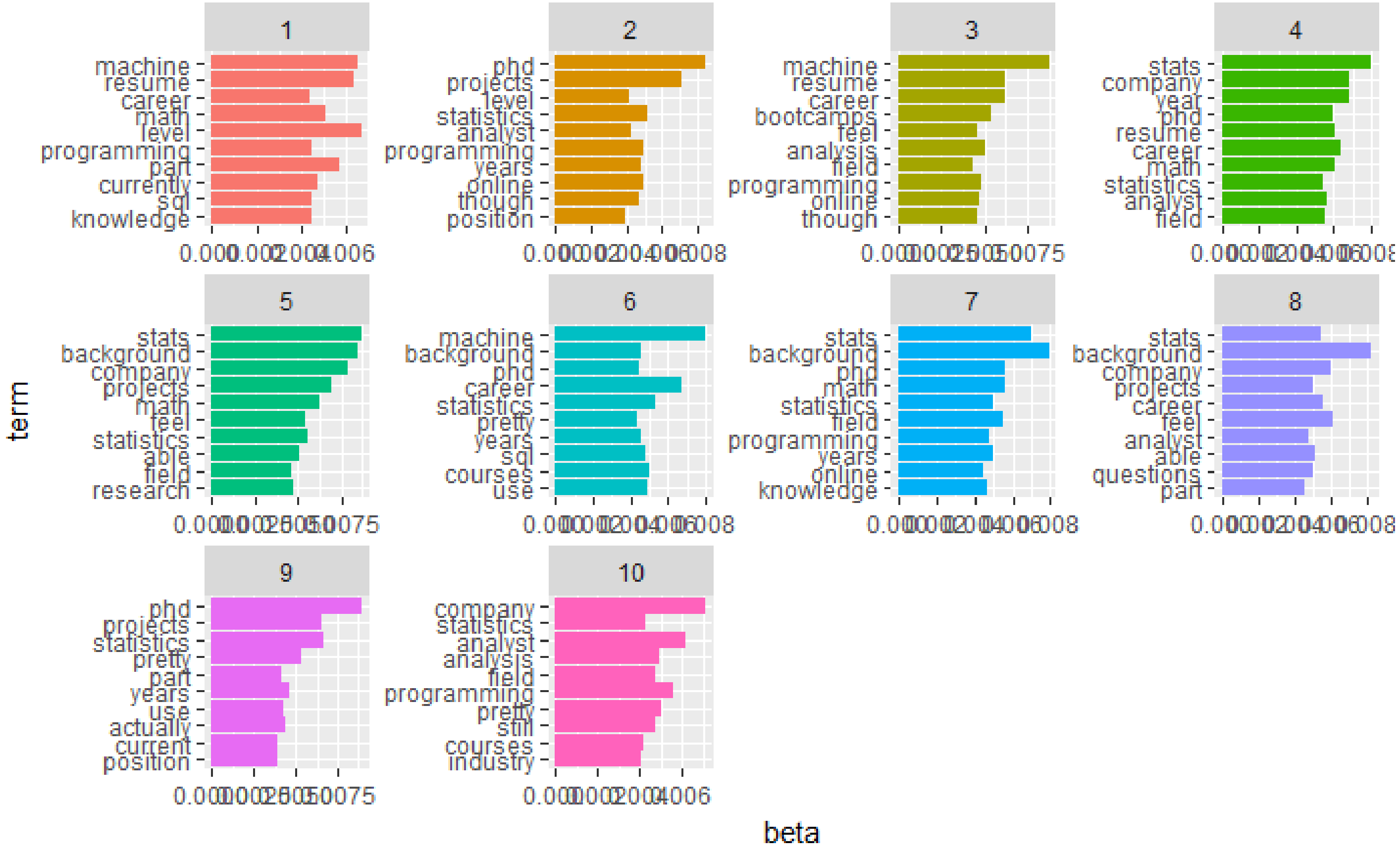
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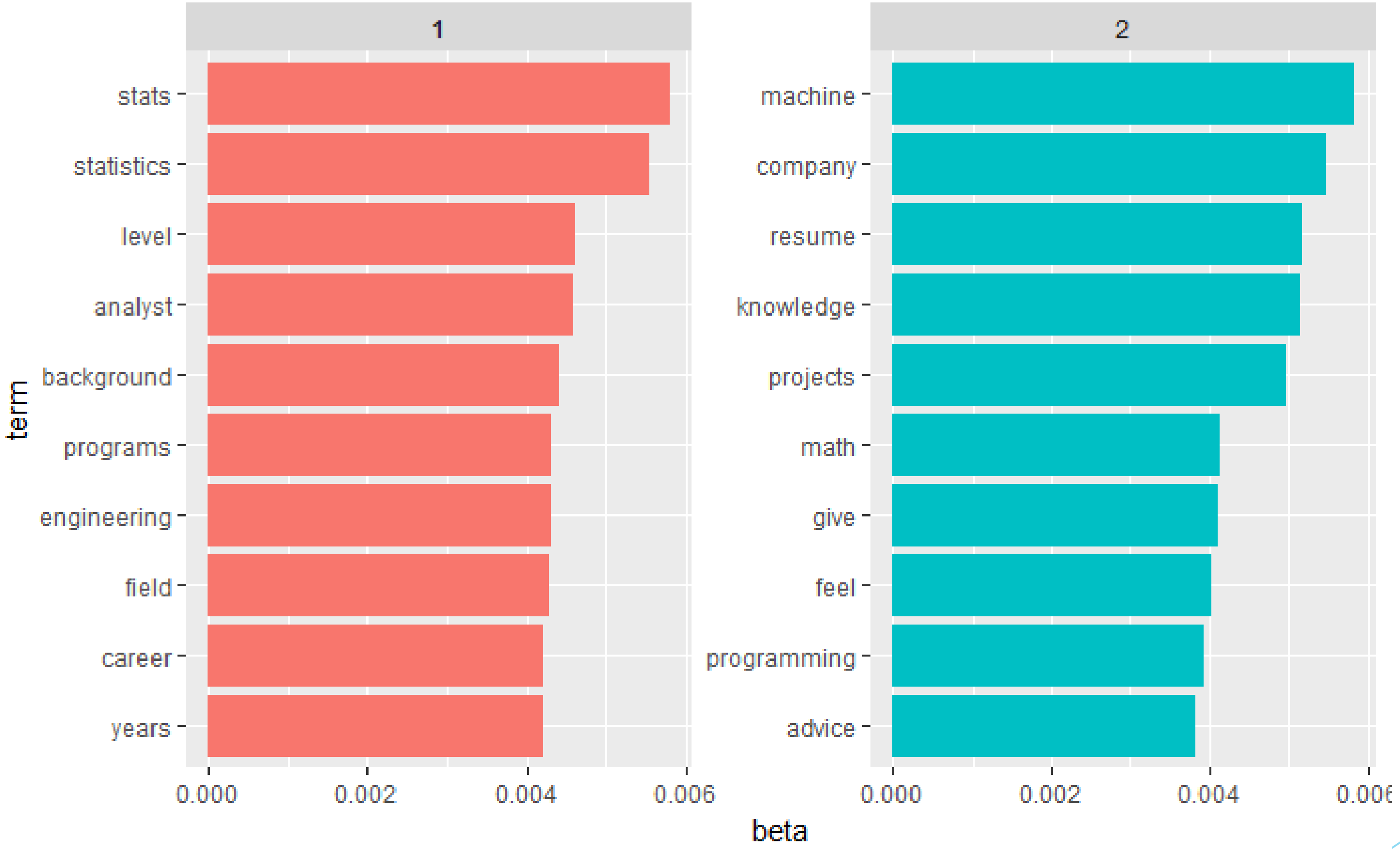
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Conclusion: Surprise!

- Major Topics of interest amongst reddit users: Job, Experience
- Python and masters and statistics seem to be other major topics of interest
- Limitations: number of words (algorithm clustering the same terms under different topics). Generalizability (sample may not reflect the interests of people interested in data science boot camps)

The future

- Increase power of the topic modeling by adding more text and test even more numbers of topics.

- Scrape reviews based other discussion based sites like Quora and Hacker News

  And see how they relate to each other

- Compare to other programming/bootcamps

- Focus marketing strategies around related topics of interest

Keep your marketing focused on helping people find a job and host sessions python