



2017 Data Science Survey

Highlights

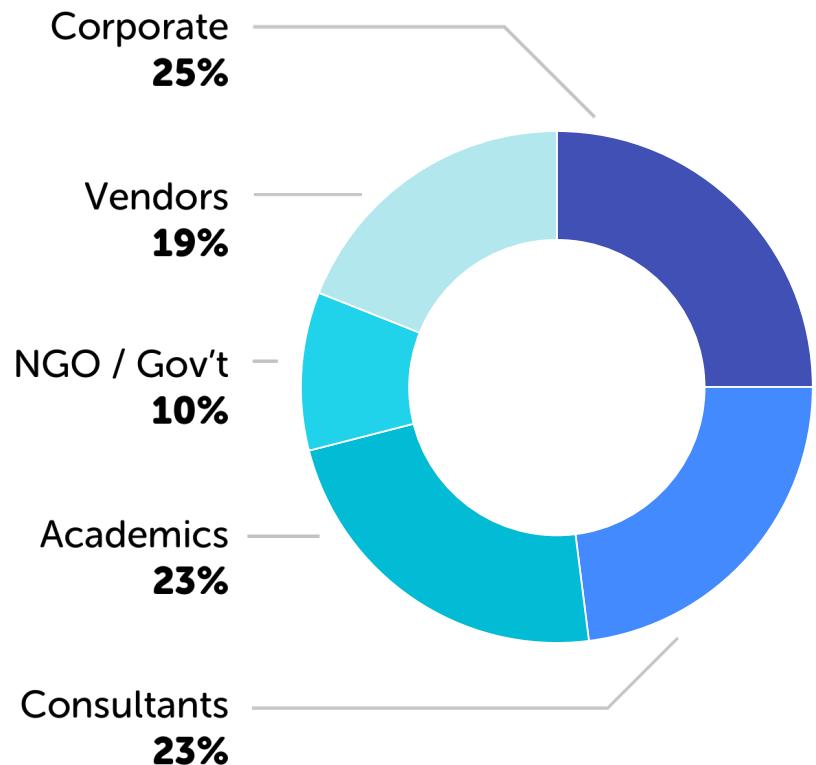
Karl Rexer, PhD
President, Rexer Analytics

www.RexerAnalytics.com

2017 Data Science Survey: Overview



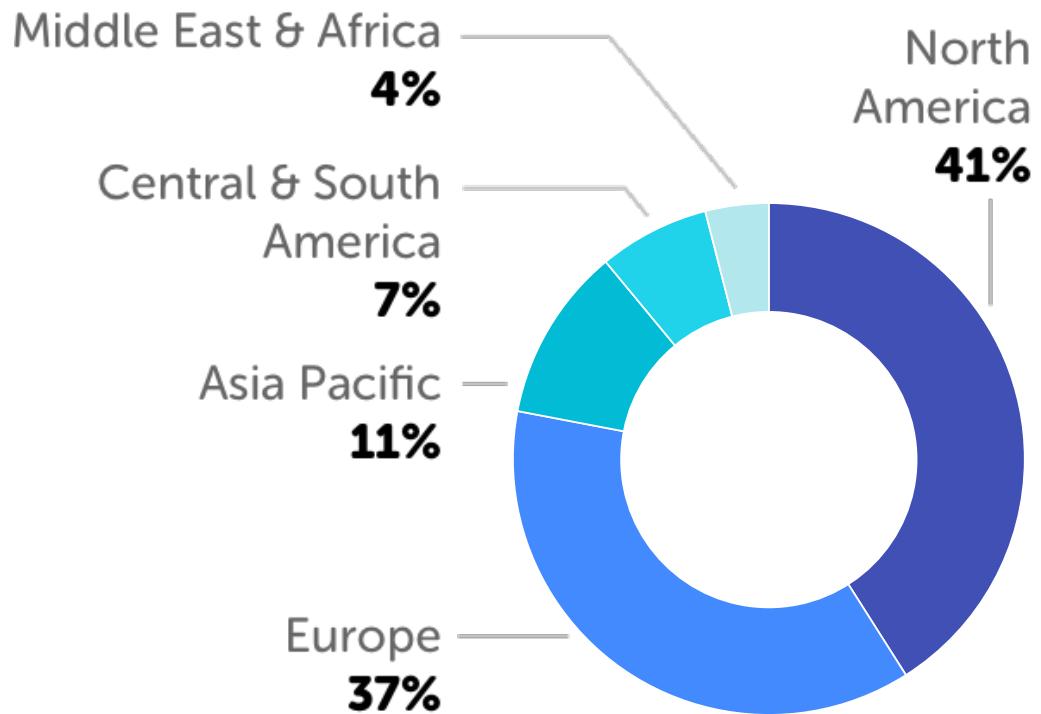
- 8th survey since 2007
- 67 questions
- 10,000+ invitations emailed & promoted by newsgroups, vendors, and bloggers
- Respondents: 1,123 analytic professionals from 91 countries
- Data collected in first half of 2017



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Formal Data Science Training is Important



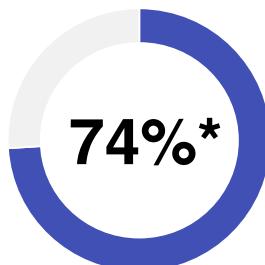
Do you agree or disagree with the following statement? You need to have formal training in data analytics in order to properly model data.

The majority of respondents agree that formal data training is needed to properly model data

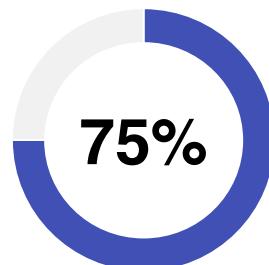
Top problems untrained staff have:

- Poor data preparation
- Mis-interpreting results

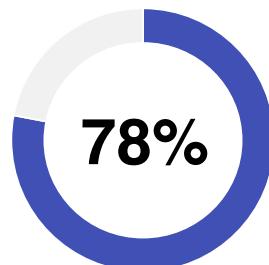
Corporate



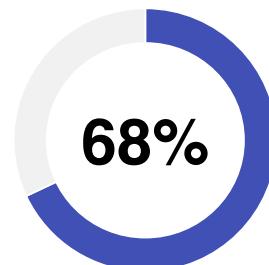
Consultants



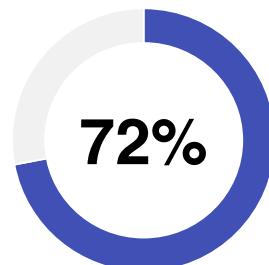
Academics



NGO / Gov't



Vendors



Do-it-yourself Tools Can Cause Problems



Have there ever been difficulties when people at your company outside the data science team have utilized these do-it-yourself tools or services?

One third of respondents have seen difficulties when do-it-yourself tools or services are used

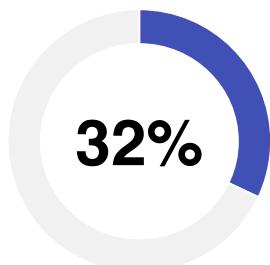
“Typically, they blow up the ship”

“People have run analyses that resulted in completely false conclusions, which were then used by the business”

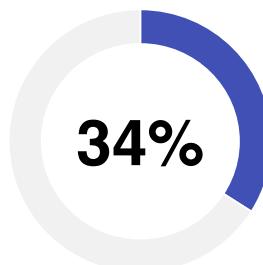
“A large part of my job is cleaning up those problems”

“It’s like giving a child a bazooka. Easy to pull the trigger, hard to know what will happen in advance.”

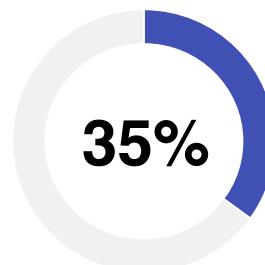
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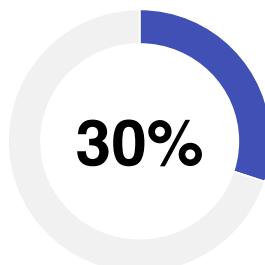
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NGO / Gov’t



Vendors

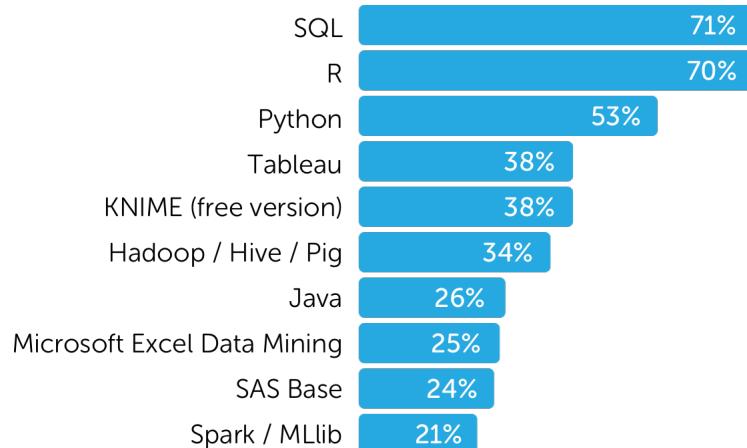


Most Data Scientists use Multiple Tools

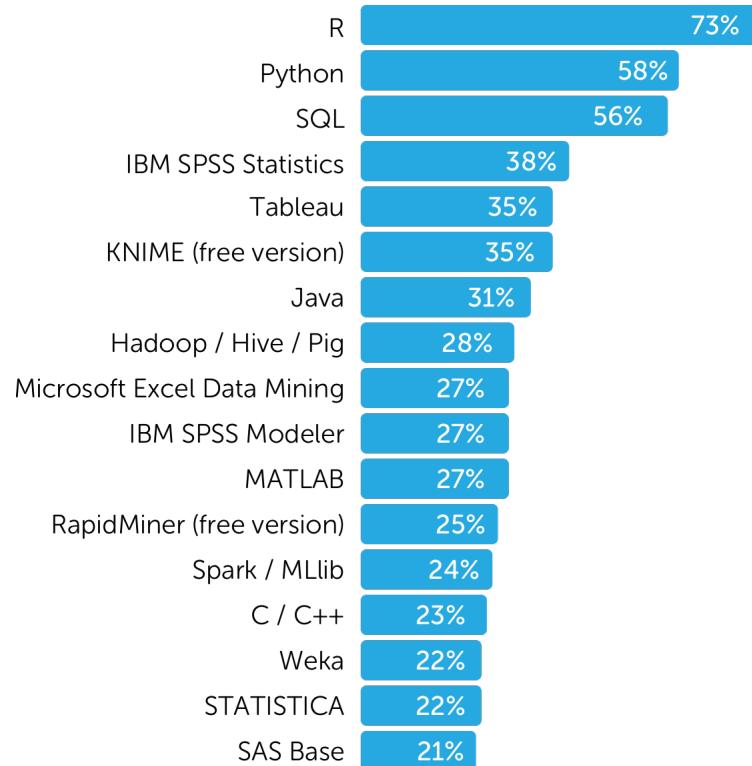


What data science / analytic tools, technologies, and languages did you use in the past year?

Corporate



Consultants

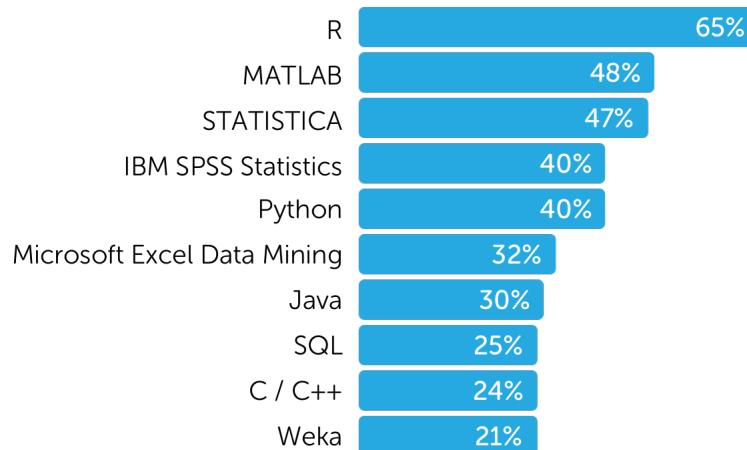


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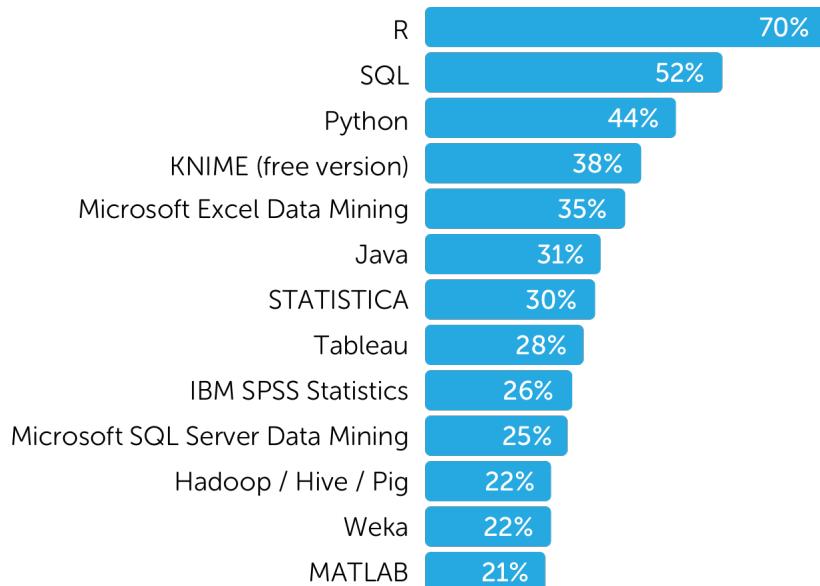


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Academics



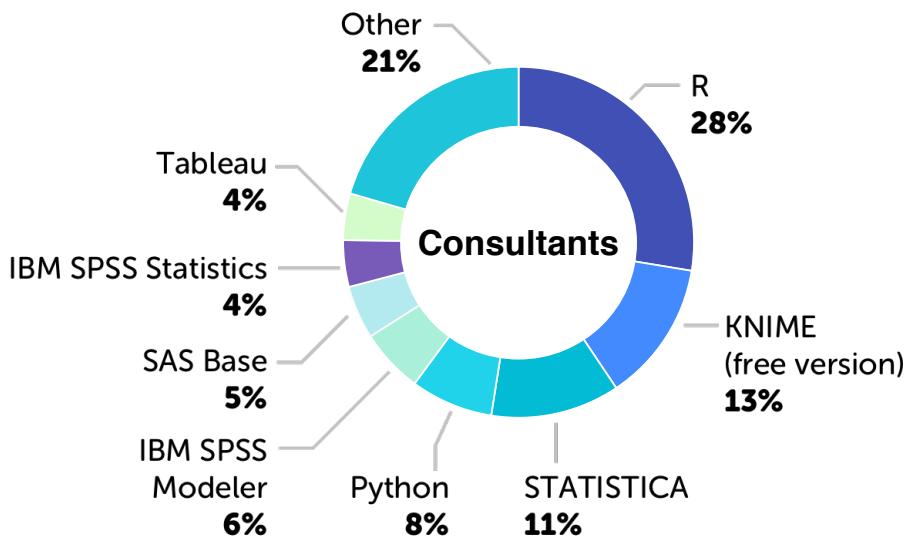
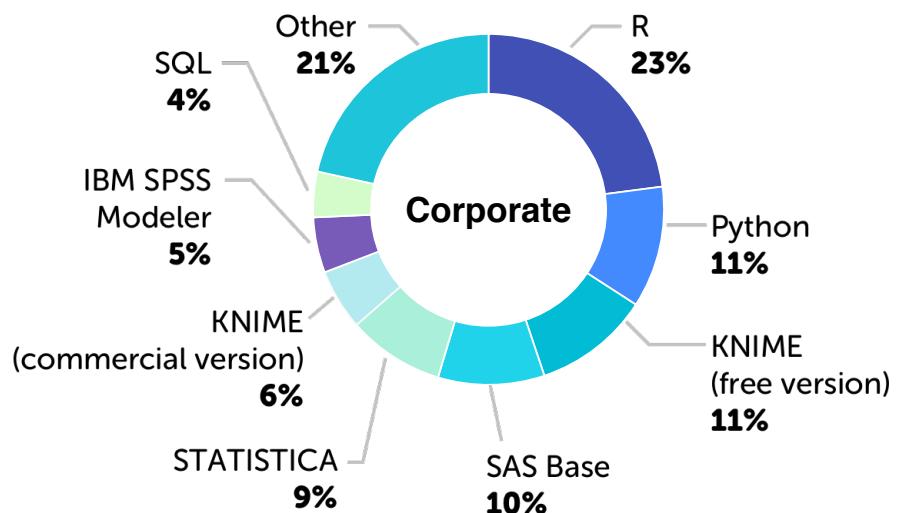
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Primary Tools



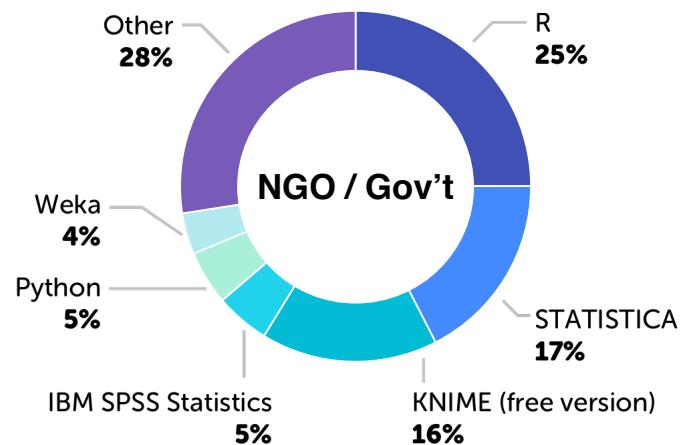
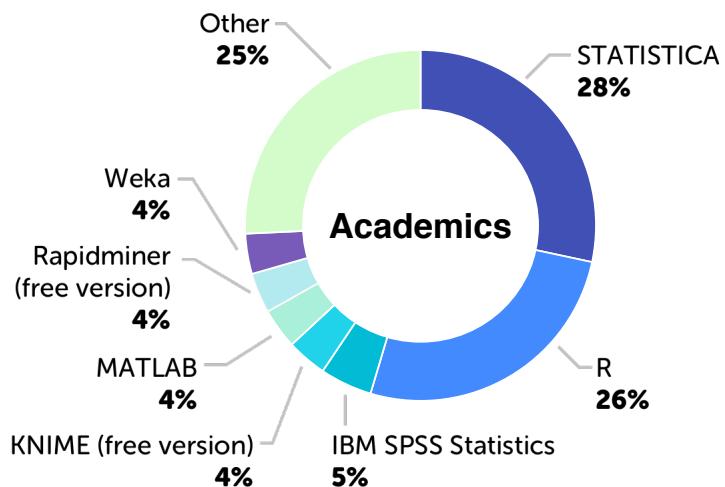
What one data science tool, technology or language do you use most frequently?



Primary Tools



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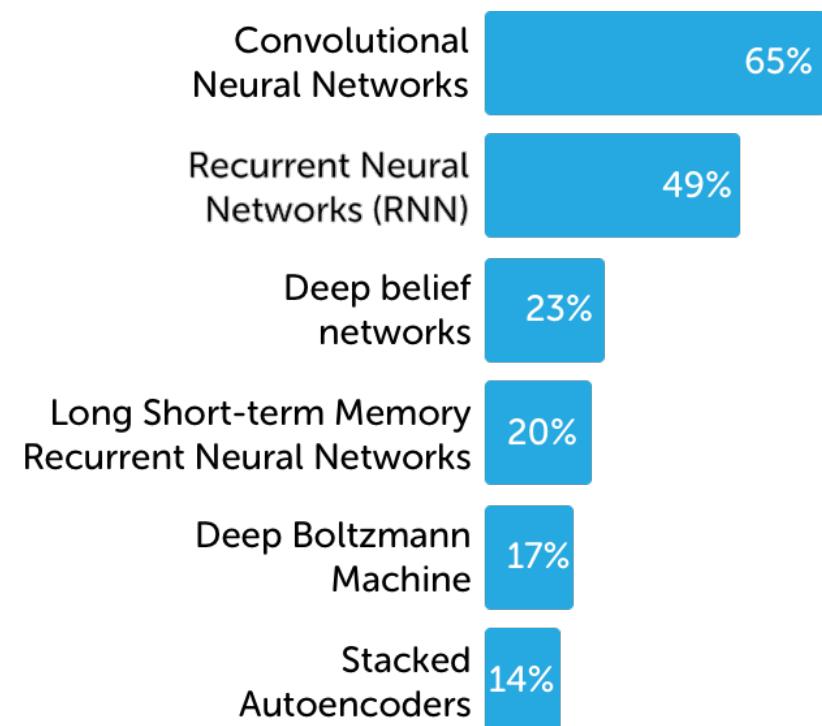
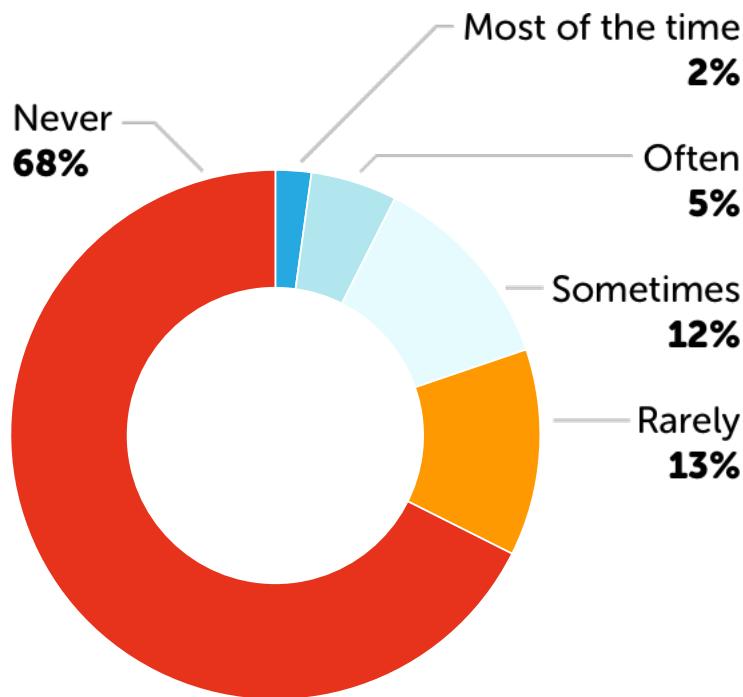
Deep Learning: It's Use is Increasing



What algorithms/analytic methods do you TYPICALLY use?: Deep Learning



Which Deep Learning algorithms have you used?





Success Stories

- Classification of 20,000+ species using crowd-sourced images
- Medical imaging segmentation
- Handwriting interpretation and voice recognition
- Impact of weather on airport arrival and departure rates
- Chip defect identification in semiconductor industry
- Prediction of negative prices in energy market
- Closed vocabulary verbal intent determination
- Colorization of black and white images
- Analysis of histopathological images
- Estimation of the daily demand on ATM knowing the demands, stock and recharge of previous times



For additional information, please contact
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2015

Data Science Survey

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AVAILABLE NOW



2017

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COMING SOON

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