

# MODERN DATA SCIENTIST

Data Scientist. the sexiest job of the 21th century, requires a mixture of multidisciplinary skills ranging from an intersection of mathematics, statistics, computer science, communication and business. Finding a data scientist is hard. Finding people who understand who a data scientist is. is equally hard. So here is a little cheat sheet on who the modern data scientist really is.



## MATH & STATISTICS

- ☐ Machine learning
- ☐ Statistical modeling
- ☐ Experiment design
- ☐ Bayesian Inference
- ☐ Supervised learning: decision trees, random forests. logistic regression
- ☐ Unsupervised learning: clustering. dimensionality reduction
- ☐ Optimization; gradient descent and variants

## DOMAIN KNOWLEDGE & SOFT SKILLS

- ☐ Passionate about the business
- ☐ Curious about data
- ☐ Influence without authority
- ☐ Hacker mindset
- ☐ Problem solver

- ☐ Strategic, proactive. Creative. innovative and collaborative

## PROGRAMMING & DATABASE

- ☐ Computer science fundamentals
- ☐ Scripting language e.g. Python
- ☐ Statistical computing package, e.g. R
- ☐ Databases; SQL and NOSQL
- ☐ Relational algebra
- ☐ Parallel databases and parallel query processing
- ☐ MapReduce concepts
- ☐ Hadoop and Hive/Pig
- ☐ Custom reducers
- ☐ Experience with xaaS like AWS

## COMMUNICATION & VISUALIZATION

- ☐ Able to engage with senior management
- ☐ Story telling skills
- ☐ Translate data-driven insights into decisions and actions
- ☐ Visual art design
- ☐ R packages like ggplot or lattice
- ☐ Knowledge of any of visualization tools e.g. Flare, D3js, Tableau

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