

# **Data Science Perspectives**

at Salzburg University of Applied Sciences

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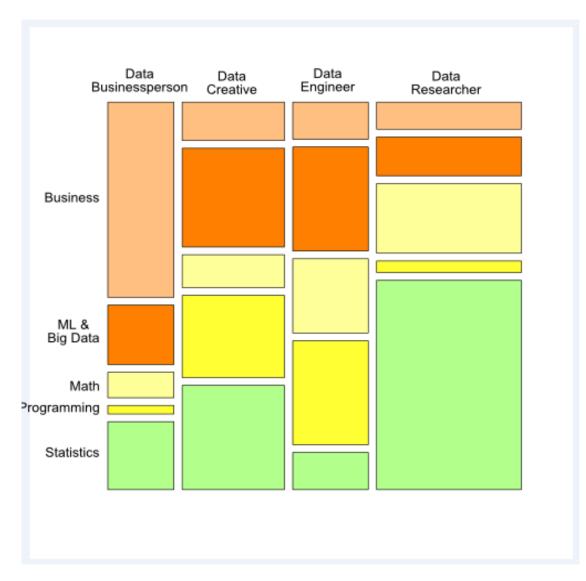
## **Data Science Skills**



Business	ML / Big Data	Math/OR	Programming	Statistics
Product	Unstructured	Optimization	Systems	Visualization
Developement	Data	Math	Administration	Temporal
Business	Structured	Math	Back End	Statistics
	Data	Graphical	Programming	
	Madhina	Models	Front Food	Surveys and
	Machine Learning	Bayesian /	Front End Programming	Marketing
	Learning	Monte Carlo	rrogramming	Spatial
	Big and	Statistics		Statistics
	Distributed Data	Algorithms		Science
'		Simulation		Data
				Manipulation
				Classical Statistics

Harris, Murphy & Vaisman, "Analyzing the Analyzers", O'Reilly, 2013

# **Data Science Skill Groups**





#### **Survey of 250+ Data Scientists.**

"We used the technique of nonnegative matrix factorization to find five underlying dimensions of variation among the rankings. We found that Data Scientists have skills that tend to be associated together, and by grouping those skills, we can provide people with a useful shorthand. Here are the skills groups, with category names that we think clarify what we as Data Scientists bring to the table."

- Harris, Murphy & Vaisman, 2012

http://datacommunitydc.org/blog/2012/08/data-scientists-survey-results-teaser/

### **Personal Recommendations**



### **Engagement with the Data Science Community**

Take a leading role in the Austrian and European Data Science arena: Events, Conferences, Challenges, Meetups, etc. Engage with the regional and international community.

#### **Education**

Integrate Data Science and "Big Data" in existing Master's Program. Consider a complete Master's Degree offering "Data Science". Work towards Austrian, European and international educational standards for Data Science.

### **Continuing Education**

Develop an attractive offering for businesses looking to acquire Data Science expertise.

Look for regional and international partners.

#### Research

Organize research projects, embedded in a network of data science research institutes and industry partners.

# **Conclusion SDSS 2014**



Have a safe trip home!