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Oh yeah, there’s also the massive shift in industry to data-oriented decision making too!

...and many applications are “data science in the large”.

Why Scala? Why Spark?

By using a language like Scala, it's easier to scale your small problem to the large with Spark, whose API is almost 1-to-1 with Scala's collections.

That is, by working in Scala, in a functional style, you can quickly scale your problem from one node to tens, hundreds, or even thousands by leveraging Spark, successful and performant large-scale data processing framework which looks a and feels a lot like Scala Collections!

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- **Good for data science**. Not just because of performance, but because it enables *iteration*, which is required by most algorithms in a data scientist's toolbox.

Also good to know...

Spark and Scala skills are in extremely high demand!

In this course you'll learn...

- **Extending data parallel paradigm to the distributed case, using Spark.**
- **Spark's programming model**
- **Distributing computation, and cluster topology in Spark**
- **How to improve performance; data locality, how to avoid recomputation and shuffles in Spark.**
- **Relational operations with DataFrames and Datasets**

Books, Resources

Many excellent books released in the past year or two!

Learning Spark (2015), written by Holden Karau, Andy Konwinski, Patrick Wendell, and Matei Zaharia

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O'REILLY
Learning Spark
LIGHTNING-FAST DATA ANALYSIS
Holden Karau, Andy K
Patrick Wendell & Mat
Spark IN ACTION
Petar Zečević
Marko Bonaći
MANNING
O'REILLY
High Performance Spark
BEST PRACTICES FOR SCALING & OPTIMIZING APACHE SPARK
Holden Karau
Rachel War
O'REILLY
Advanced Analytics with Spark
PATTERNS FOR LEARNING FROM DATA AT SCALE
Sandy Ryza, Uri Laserson, Sean Owen & Josh Wills

Spark in Action (2017), written by Petar Zecevic and Marko Bonaci

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High Performance Spark (2017), written by Holden Karau and Rachel Warren

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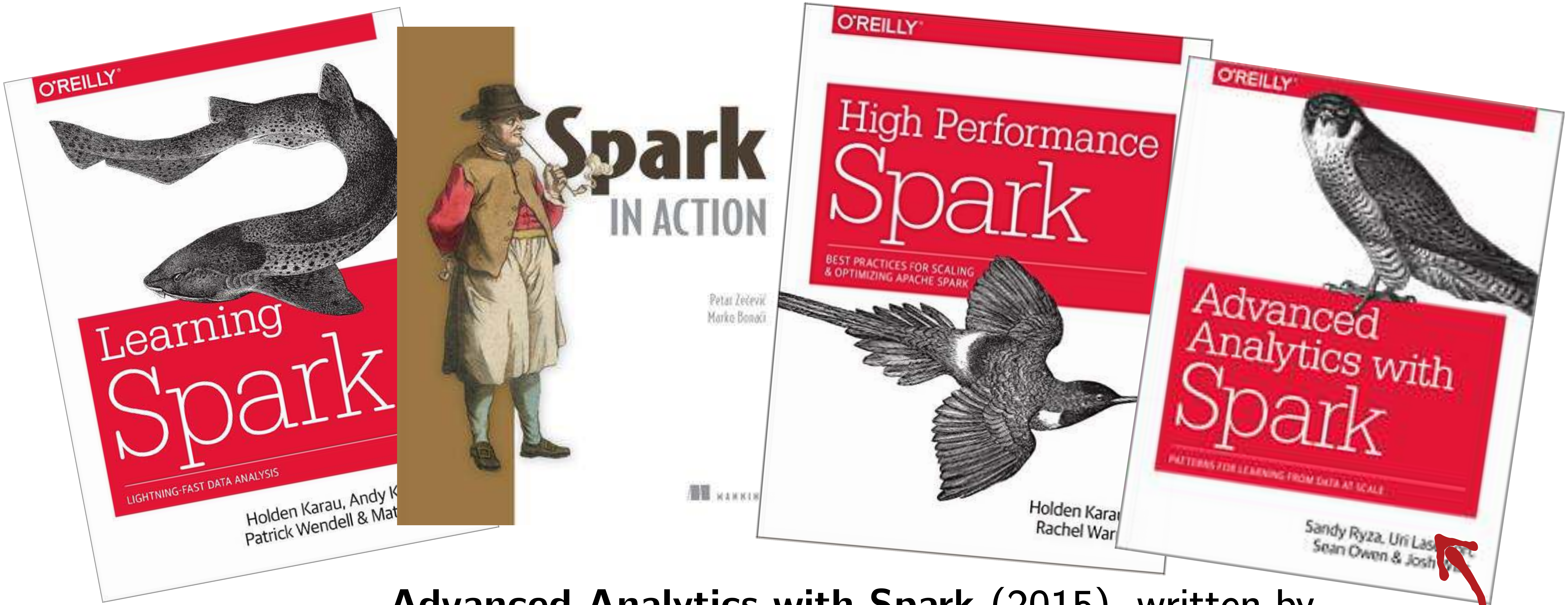

Advanced Analytics with Spark (2015), written by Sandy Ryza, Uri Laserson, Sean Owen, and Josh Wills

Books, Resources

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Mastering Apache Spark 2,
by Jacek Laskowski

jaceklaskowski > Mastering Apache Spark 2

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Mastering Apache Spark 2

Welcome to Mastering Apache Spark 2 (aka #SparkLikePro)!

I'm Jacek Laskowski, an **independent consultant** who is passionate about **Apache Spark**, Apache Kafka, Scala, sbt (with some flavour of Apache Mesos, Hadoop YARN, and DC/OS). I lead Warsaw Scala Enthusiasts and Warsaw Spark meetups in Warsaw, Poland.

Tools

- IDE of your choice
- sbt
- Databricks Community Edition *(optional)*

  Free hosted in-browser Spark notebook. Spark “cluster” managed by Databricks so you don’t have to worry about it. 6GB of memory for you to experiment with.