Data Science for Everyone

A multidisciplinary approach to finding, extracting, and surfacing patterns in data through a fusion of analytical methods, domain expertise, and technology.

Who uses data science?

Data scientists require a broad combination of knowledge and skills:

- **Who uses data science?**
- **What is data science?**

A multidisciplinary approach to finding, extracting, and surfacing patterns in data through a fusion of analytical methods, domain expertise, and technology. To monetize and realize value, organizations need to infuse analytics into business processes and operations.

"The Hotshots":

Leverage a multitude of data sources to solve new problems, prototype solutions using machine learning, and run data science workflows at scale. Favor tools like R, Python, Scala, Hadoop, and Spark.

"The Embedded":

Focus on business unit-led initiatives and improving business operations.

"The Specialists":

Work across all functions and business units to solve problems and collaborate with IT to operationalize machine learning models. Attain buy-in and funding from executives.

"The Hidden Talent" aka Citizen Data Scientists:

Use data and analytics on a daily basis to solve specific business problems with a point-and-click interface.

"The Untapped Potential":

Want to jump in, but don't feel they have the support or training or don't work for an organization with technology offering reusable templates.

Top challenges for data science:

- **Domain Expertise/Business Knowledge** collaboration, teamwork, and communication
- **Computer Science/IT Skills** data pipelines, model deployment, monitoring, and management
- **Analytics Skills** data prep, machine learning, statistics, geospatial analytics, and data visualization

By 2020*

- **Proportion of time spent on data science tasks**
  - Understanding and problem analysis
  - Deployment into the business
  - Model deployment into the business, monitoring, and maintenance
  - Communication around decisions and governance
  - Data collection, prep, and exploratory analysis

Organization:

- Lack of alignment between data science, business, and IT

Technology:

- Incompatible systems, data access challenges, and infrastructure

Connected Intelligence:

With a platform that provides orchestration and governance for the end-to-end analytic lifecycle, rapidly prototype new solutions with native algorithms, open source, and partner ecosystems

Process:

- Lack of coordination in the development, deployment, and maintainability of models

Data Science for Everyone:

Democratize and collaborate on data science with automation, reusable templates, and a common collaborative framework for cross-functional teams

AnalyticOps:

Monetize the value of data science by systematically focusing on its operations through pipeline monitoring, management, updating, and governance

To learn more