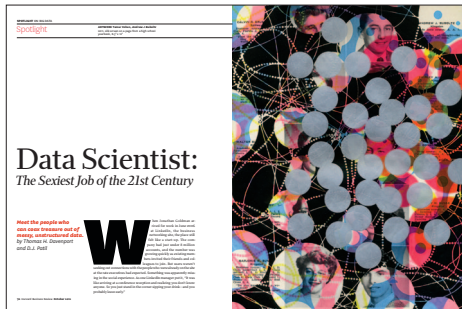




Hot Jobs: Data Scientist



HBR article by **Thomas H. Davenport** and **D.J. Patil**, October 2012

A LinkedIn employee uses analytics to come up with the popular “People You May Know” feature. A Facebook team

creates a new coding language. They’re the data scientists. Part hacker, part analyst, part communicator, these professionals use analytics to solve problems. But recruiting these creative data junkies can prove tricky, especially since the specific skill set they use is absent from university programs. Companies that don’t act early to recruit talent risk falling behind.

I fear that companies trying to jump on the data bandwagon early is that they’ll expect analysts to revolutionize their business. Educating leaders on the role of a data scientist is extremely important.

Michael Stafford, business process engineer, Siemens

The examples of Facebook and LinkedIn are not representative, because these companies are built on big data; they do not need to address historic data silos. Consolidating and aggregating data across the silos within an established enterprise can represent a major challenge. A good

starting point for them is committing to cross-disciplinary data analysis and product development.

Jorn Bettin, managing partner, S23M Business Performance Consulting

Even if the ability to easily write code (in several languages) isn’t an explicit requirement for data scientists, it is an indicator of talent that will remain important even as big-data technology matures. Coding requires a powerful mind that is particularly good at pattern recognition.

Christina Gutiérrez, principal scientist, advanced R&D, Nielsen

I disagree that the ability to write code is the key, universal skill to look for among data scientists. Big data tool sets are in their infancy, and some of the core problems that data scientists are trying to solve are so new. So the need for coders may be a temporary phenomenon. I believe that you can separate the programming skills from the analytical ones quite easily.

Richard Hren, vice president, consumer insight, Razorfish

As data scientists, we’re building the tools we need as we go along.

Paul Lam, data scientist, Datamlyen Consulting

The coding part of the job is absolutely essential. Writing your own code allows exploration of curiosity and the satisfac-

for some time. The “five management challenges” they pose—leadership, talent management, technology, decision making, and company culture—seem common for any management issue. The authors refer to companies that “characterized themselves as data driven” without specifying criteria. Observations like “You can’t manage what you don’t measure” and “Data-driven decisions tend to be better decisions” are certainly not new. This all sounds like an escalation of data mining, analytics, and

Big Data’s Management Revolution

HBR article by **Andrew McAfee** and **Erik Brynjolfsson**, October 2012

Exploiting vast new flows of information can radically improve your company’s performance.

This article promotes a vague concept that is getting traction these days in part because its name is a clever catchphrase. The authors assert that volume, velocity, and variety are new, but actually they are just extensions of the dimensions and characteristics of large-scale, complex information and data that have been around



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tion of uncovering new queries. Analyzing data is like peeling back layers one at a time. I can't imagine not being hands-on with my data sets because output alone does not inspire creativity.

Natalie Robb, principal, WaveLength Market Analytics

A statistics degree worth its salt should have a strong coding element; and data scientists should study university-level calculus, linear algebra, and probability, because data analysis techniques are built on these math disciplines. Without knowledge of these subjects, it's difficult to open up the statistical techniques and see what's really going on inside.

Jolyon Sebastian Faria, Master of Science student in applied statistics, University of Oxford

If you're looking for candidates to do this kind of work, I would recommend advertising-data planners. The best practitioners isolate the effects of advertising from all other marketing influences—and they have to be intuitive enough to work with creative teams to make ads that drive business. So they're good at dealing with uncertainty and turning it into numbers.

John Griffiths, creative director, Spring Research

Analyzing big data feels like "swimming in data"; it's a complete immersion, constantly asking questions. It's the best

information-based decision making rather than something new. What is "the management revolution"? The authors need to tell us what makes this a departure, what is at stake, and what concrete steps leaders and managers need to take.

Bruce W. Dearstyne, adjunct professor, University of Maryland College of Information Studies

feeling to find that crucial insight that could change a business.

Julian Dennis, director, Fortis Pacific Consulting

The article shortchanges data scientists in defining the aspect of their jobs that relies on domain knowledge. "Swimming in data" is nice, but in the data-mining world this is referred to as "data dredging," where you may end up with statistically significant results that can't be easily interpreted in the business context. A more complete definition would be this: someone with a healthy curiosity, well versed in data manipulation and statistics, and enough domain knowledge to draw the right insights.

Prakash Aditham, solution architect, BI and data management, Slalom Consulting

Getting the basics right is important. It is not enough to employ intelligent people with great ideas, no matter how brilliant they are: You also need a process to transition from research insights into commercial products. Without one, companies run a real risk of trapping the research function in a silo, unable to take responsibility for the operational impact of its insights. To avoid this, think carefully about the relationship between data science research, operations, and engineering. Also, make data scientists responsible for outcomes, and give them the power to implement those outcomes directly.

William Payne, senior data engineer, EveryScreen Media

Many people are interested in being data scientists, but it is difficult for me to agree with the notion that anyone—even people who lack mathematical acumen or interest—can take up the job, which can be tedious.

Harcharan Singh, retired officer and deputy director general, Indian Statistical Service (ISS), Ministry of Labour & Employment, Government of India



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