

**FEATURE**

## Employers seek experts to analyze behavioral data

Psychologists are finding new career opportunities in data science

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Alyssa Fu, PhD, planned on being a professor when she started working on her doctorate in social psychology at Stanford University. "I definitely didn't plan on going into industry or data science," she says.

But that's exactly where she ended up—and she has enjoyed every minute of it. Fu is now a program manager at Insight Data Science (<http://insightdatascience.com/>), a Palo Alto, California-based organization that offers postdoctoral training fellowships to bridge the gap between academia and careers in data science.

Fu had always had an interest in data analysis, and she realized that those skills were in high demand outside academe.

Companies are now collecting and storing unprecedented amounts of data, much of it on human behavior, from spending habits to movie choices on Netflix. And those messy, real-life, human data need a trained eye to make sense of it all.

"Psychologists are very well positioned to use what they've learned getting their PhDs to look at really interesting problems about human behavior, while also helping companies succeed," Fu says.

### Understanding people

Increasingly, companies are turning to science to answer questions about their customers' preferences and behaviors, says behavioral scientist Stevie Yap of the Toronto-based research firm Insighta (<http://insightaresearch.com/>) in 2015.

"Things as simple as a logo, a color on the screen, even how many seconds should elapse between two back-to-back episodes of a show—so much of business decision-making is done using data and formal testing," he says.

For some time, traditional data scientists have been in high demand to analyze the results. More recently, companies have realized that psychologists with quantitative skills can bring a lot to the team.

"Most of the data that data scientists are working on is generated by people—people's behaviors, people's opinions," says Ravi Iyer, PhD, a social psychologist now working as the chief data scientist for Ranker (<http://www.ranker.com/>), a website that creates crowdsourced lists about everything from the best restaurants to the worst-dressed actors. But many of the questions, he says, are psychological in nature—life's greatest simple pleasures, the most common life goals. "We provide quantitative answers to those questions, and we're measuring these things along all these really interesting dimensions," he says.

Psychologists know better than anyone how to explore people's behaviors and opinions in a systematic way. "We not only have that data experience, but we've been trained to study people and know what their biases are," adds Fu. "Companies get excited when someone has a psychology background."

Tech companies were some of the first to embrace data-driven decision-making. But all sorts of other organizations are following suit, and psychologists don't have to move to Silicon Valley to land data jobs. Even nonprofit organizations and foundations are getting on board, using data to answer questions about what to fund and which of their programs have the most impact, Yap notes.

### Making yourself marketable

How can you prepare for a data-driven career? Step one is to develop your technical skills. That typically means beefing up on statistics and gaining some experience in programming languages such as R and Python, says Fu.

If that sounds daunting, it doesn't have to be. "It can seem intimidating, but programming is just the act of codifying something so it's repeatable. Most researchers do that as a matter of course," says Iyer. "A lot of people are programming and they don't even know it."

While Iyer has been programming for years, he's also helped teach psychology graduate students to get up to speed—and some of them have already gone on to industry jobs in data analysis.

Iyer also recommends practicing with real datasets, many of which are available online. Formal internship experience can also be valuable, Yap adds. "Set yourself up to have applied experience early on."

### Jumping ship

After spending years immersed in a doctoral program, private industry can feel like foreign territory, with a different language, different protocols, and often a different pace than the academic world. Many people fear that once you leave academia, it's nearly impossible to hop back in.

While it may be harder to get a traditional tenure-track professor position after a detour into private industry, it's not impossible, Yap says. Business schools, for example, are often welcoming to people with industry experience, he says.

Increasingly, companies are partnering with academic researchers to explore questions of human behavior, Fu adds. "Going into industry and the private sector doesn't have to be at odds with being in academia. There are many ways to keep up those partnerships," she says.

Then again, if you find the right position, there won't be a reason to look back, Yap says. "There's a stereotype [among people in academia] that industry jobs are boring, and some very well could be. But there are a lot of really interesting jobs that would be very fulfilling for a scientist," he says.

For people who aren't excited about the publication process, or those who prefer to see the results of their research in months rather than years, private industry might be a better fit, says Iyer. "It is absolutely a career field that will continue to grow. And I think it will evolve in a way that will make it even better for psychologists."

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