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Innovators wanted: Machine learning, IoT jobs on the rise

Machine learning and AI-related job offers outpace the number of searches conducted for them, according to job search engine Indeed

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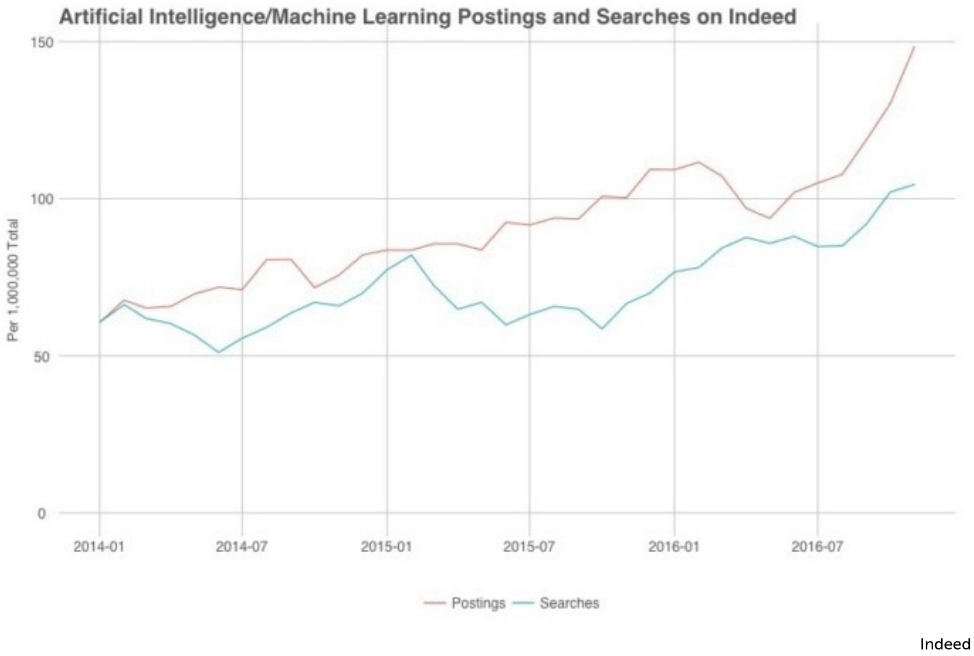
Conventional wisdom held that the job market for machine learning and AI-related positions was hot. But according to statistics released by job search engine Indeed, "sizzling" might be a better adjective.

Trend data provided by Indeed since 2014 shows job postings for artificial intelligence and machine learning positions (identified by those keywords) rising steadily from the beginning of 2014 to the start of 2016, from around 60 job postings per million to more than 100. In 2016 alone, the number of such postings jumped as much as they had over the past two -- up to 150 postings per million.

Smarten up

Even back in 2014, artificial intelligence was solidly in the lead compared to other job postings involving emerging technologies: 3D printing, blockchain technology, IoT, virtual/augmented reality, and wearable tech. All the other technologies on the list, save for IoT, have remained consistently at around 10 posts per million during that time.



Job postings for AI/ML jobs outstrip the number of searches for them, pointing to a growing need for skilled engineers.

Indeed's data shows another piece of evidence attesting to machine learning's demand: The number of postings for such jobs currently outstrips the number of searches for such jobs -- 100 per million searches versus 150 per million postings.

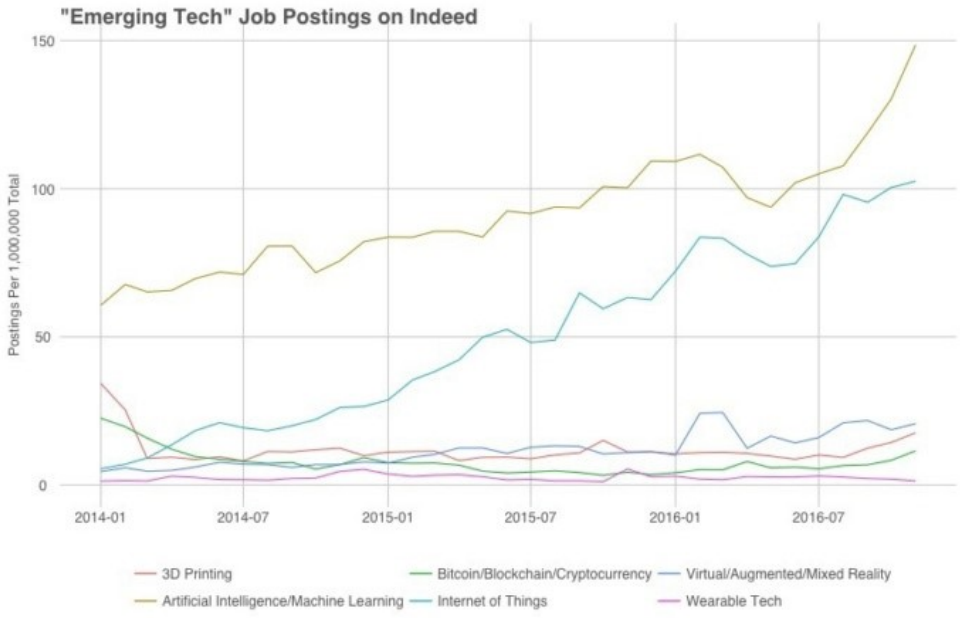
Further research from Indeed's team showed that the top outfits hiring for those positions are a who's who of big-name IT: Amazon, Apple, Google, Microsoft, Facebook, and Nvidia. That last is fitting given the company's head-first dive into enhancing machine learning by offering ever more advanced GPU hardware to run it. Other names in the list include Chinese networking giant Huawei, Capital One, and both Ford and Uber, ostensibly because of their respective self-driving car projects.

It isn't hard to see why AI/ML is taking the lead overall. For one, it has a proven record of real-world results. It's also become easier to be an effective dev in this category, thanks to a profusion of software tools that grow a little less ornery and complex with each iteration.

The hard part will be getting the reality to line up with the fantasy. Certainly, it's not exatly realistic to expect developers to give us HAL 9000 (minus the homicidal tendencies). However; it's difficult to build machine learning projects that deliver useful results and aren't merely reflections of the biases of their creators. To do that requires devs and data scientists who know how to do more than merely connect the existing dots.

The followers of the pack

At the bottom of the list, with no signs of lifting anytime soon, is wearable tech. Wearables are a niche, but haven't exploded into the next big thing the way some prophesied they would, and even a giant like Apple wasn't able to make that happen. Likewise, 3D printing, despite respectable growth in hardware sales, is likely to remain dormant without an application that has truly broad, irresistible appeal. (Consider that a mission for any prospective developers: Find a use for 3D printing that the masses can't refuse.)



Indeed

AI/ML and IoT job postings on Indeed have outstripped all other emerging-tech jobs by a wide marging. Almost all of them showed some perking-up in 2016, but AI/ML showed explosive growth in the last year alone.

Blockchain technology, which lies at the heart of bitcoin, has applications far beyond digital currency, hence investments in blockchain tech by IBM and others. But it isn't clear yet if a blockchain boom will lead to a concomitant surge in developer demand; it might remain a niche field where relatively few core developers are needed and where most of the use is encapsulated in libraries or provided by services.

With VR/AR, there's a sense that after many false starts, the technology is finally reaching critical mass. Business applications like data visualization have a lot of promise, and the number of developer listings for the tech did experience a slight loft over the course of the last year. But as VR/AR comes in third -- if only a distant third -- it's worth keeping in mind as a dark-horse developer category.

Second place goes to a category that's a mixture of promise and peril: IoT. It's promising because devices that work automatically with each other at scale can in theory work wonders. The peril: "Smart devices" won't mean much if they're built by dumb people. If you want to beat the thundering herd to future IoT jobs, bone up on your software security skills, as all signs point to them being in demand for future developers.

Serdar Yegulalp is a senior writer at InfoWorld, focused on the InfoWorld Tech Watch news analysis blog and periodic reviews.

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