THE SHIFT

For Some Recent Graduates, the A.I. Job Apocalypse May Already Be Here

The unemployment rate for recent college graduates has jumped as companies try to replace entry-level workers with artificial intelligence.

Listen to this article · 7:33 min Learn more

By Kevin Roose
Reporting from San Francisco

May 30, 2025

This month, millions of young people will graduate from college and look for work in industries that have little use for their skills, view them as expensive and expendable, and are rapidly phasing out their jobs in favor of artificial intelligence.

That is the troubling conclusion of my conversations over the past several months with economists, corporate executives and young job-seekers, many of whom pointed to an emerging crisis for entry-level workers that appears to be fueled, at least in part, by rapid advances in A.I. capabilities.

You can see hints of this in the economic data. Unemployment for recent college graduates has jumped to an unusually high 5.8 percent in recent months, and the Federal Reserve Bank of New York recently warned that the employment situation for these workers had "deteriorated noticeably." Oxford Economics, a research firm that studies labor markets, found that unemployment for recent graduates was heavily concentrated in technical fields like finance and computer science, where A.I. has made faster gains.

"There are signs that entry-level positions are being displaced by artificial intelligence at higher rates," the firm wrote in a recent report.

But I'm convinced that what's showing up in the economic data is only the tip of the iceberg. In interview after interview, I'm hearing that firms are making rapid progress toward automating entry-level work, and that A.I. companies are racing to build "virtual workers" that can replace junior employees at a fraction of the cost. Corporate attitudes toward automation are changing, too — some firms have encouraged managers to become "A.I.-first," testing whether a given task can be done by A.I. before hiring a human to do it.

One tech executive recently told me his company had stopped hiring anything below an L5 software engineer — a midlevel title typically given to programmers with three to seven years of experience — because lower-level tasks could now be done by A.I. coding tools. Another told me that his start-up now employed a single data scientist to do the kinds of tasks that required a team of 75 people at his previous company.

Anecdotes like these don't add up to mass joblessness, of course. Most economists believe there are multiple factors behind the rise in unemployment for college graduates, including a hiring slowdown by big tech companies and broader uncertainty about President Trump's economic policies.

But among people who pay close attention to what's happening in A.I., alarms are starting to go off.

"This is something I'm hearing about left and right," said Molly Kinder, a fellow at the Brookings Institution, a public policy think tank, who studies the impact of A.I. on workers. "Employers are saying, 'These tools are so good that I no longer need marketing analysts, finance analysts and research assistants.'"

Using A.I. to automate white-collar jobs has been a dream among executives for years. (I heard them fantasizing about it in Davos back in 2019.) But until recently, the technology simply wasn't good enough. You could use A.I. to automate some routine back-office tasks — and many companies did — but when it came to the more complex and technical parts of many jobs, A.I. couldn't hold a candle to humans.

Kevin Roose and Casey Newton are the hosts of Hard Fork, a podcast that makes sense of the rapidly changing world of technology. Subscribe and listen.

That is starting to change, especially in fields, such as software engineering, where there are clear markers of success and failure. (Such as: Does the code work or not?) In these fields, A.I. systems can be trained using a trial-and-error process known as reinforcement learning to perform complex sequences of actions on their own. Eventually, they can become competent at carrying out tasks that would take human workers hours or days to complete.

This approach was on display last week at an event held by Anthropic, the A.I. company that makes the Claude chatbot. The company claims that its most powerful model, Claude Opus 4, can now code for "several hours" without stopping — a tantalizing possibility if you're a company accustomed to paying six-figure engineer salaries for that kind of productivity.

A.I. companies are starting with software engineering and other technical fields because that's where the low-hanging fruit is. (And, perhaps, because that's where their own labor costs are highest.) But these companies believe the same techniques will soon be used to automate work in dozens of occupations, ranging from consulting to finance to marketing.

Dario Amodei, Anthropic's chief executive, recently predicted that A.I. could eliminate half of all entry-level white-collar jobs within five years.

That timeline could be wildly off, if firms outside tech adopt A.I. more slowly than many Silicon Valley companies have, or if it's harder than expected to automate jobs in more creative and open-ended occupations where training data is scarce.

But even if A.I. doesn't take all the entry-level jobs right away, two trends concern me.

The first is that, in a rush to boost productivity and stay ahead of the curve, some companies may be turning to A.I. too early, before the tools are robust enough to handle full entry-level workloads. (We recently saw an example of this in Klarna, the Swedish buy-now-pay-later company, which declared two years ago that it was replacing customer service agents with A.I. chatbots, only to reverse course and rehire humans after customers complained.)

Some executives are making a calculated bet that A.I. systems will improve quickly — or that the money they stand to save by employing virtual workers instead of human ones is worth a few unhappy customers. But others may not realize the risks they're taking.

The second is that even if entry-level jobs don't disappear right away, the expectation that those jobs are short-lived may lead companies to underinvest in job training, mentorship and other programs aimed at entry-level workers. That could leave those workers unprepared for more senior roles later on.

"Nobody has patience or time for hand-holding in this new environment, where a lot of the work can be done by A.I. autonomously," Heather Doshay, the head of people and talent at the venture capital firm SignalFire, told me.

If there's a silver lining for recent graduates, it's that — at least for some of them — the threat of A.I. replacement seems to be lighting a useful kind of fire. Some young workers I spoke to are using their experience with A.I. to vault themselves ahead of more senior colleagues, and others are steering clear of the traditional ladder-climbing professions altogether.

Trevor Chow, 23, a recent Stanford graduate living in San Francisco, told me that many friends had weighed A.I. progress among their considerations when looking for jobs. Few of them were going into traditional tech and finance careers, he said, and more were doing risky things like starting companies — on the theory that if humans are about to lose their labor advantages to powerful A.I. systems, they had better hurry and do something big.

“It feels like there aren’t that many years left to do things,” he said. “If the amount of leverage you have as a human becomes very small, a lot of career paths that don’t pay off for many years aren’t worthwhile.”

Kevin Roose is a Times technology columnist and a host of the podcast "Hard Fork."

A version of this article appears in print on , Section A, Page 1 of the New York edition with the headline: Foot in Door? Not With A.I. Doing the Job.