

CAREER CHOICE

Intelligent Option

Dozens of colleges in the US have recently started majors, minors and graduate programmes in AI. Alan Blinder reports

The artificial intelligence craze has come to the academic catalogues of American universities. Dozens of colleges have started majors, minors and graduate programmes in AI, enticing students but also stirring questions about the speed with which they are constructing academic offerings.

Here are some things experts suggest considering before enrolling.

Know the goal

AI degrees may share names but they do not have the same curriculums — or even the same ambitions.

For example, Carnegie Mellon University, the first in the US to start an AI degree, focuses on theory and how the technology is constructed.

“Our major goal is to teach students how to understand the foundations of AI technology so they can go out into the world and design and build the next generation,” said Reid Simmons, a computer science professor who directs the major.

More often, universities are teaching students how to use AI in fields beyond computer science.

The University of North Dakota in the US, which offers a doctorate in AI, teaches students how they could apply AI in fields including aircraft construction and medicine, said Ryan Adams, dean of the College of Engineering and Mines. “We can take these very difficult problems, use AI to help solve those problems,” he said.

Martial Hebert, dean of Carnegie Mellon’s School of Computer Science, said both approaches could be valuable. “You just need to know that’s what you’re getting,” he said.

Check track record

Experts suggested students look to universities already known for computer science.

“The places that have been good at



REAL TO REEL

More than 10 years ago, Disney made an animation film called *Big Hero 6*. The principal character was an AI-powered healthcare robot called Baymax (in pic) built by a “brilliant” robotics student at the San Fransokyo Institute of Technology. We now know that director Don Hall was inspired by an inflatable robotic arm he saw while visiting Carnegie Mellon University’s Robotics Institute. PhD student Siddharth Sanan had developed it in the course of his research.

this kind of thing will remain good,” said Charles Isbell, computer scientist and chancellor of the University of Illinois Urbana-Champaign, US. “The places that have no track record here have a lot of work to do in order to

build a quality programme. Some of them will, and many of them won’t.”

Isbell, whose university does not offer a stand-alone AI degree, added, “Name your top 50 departments. They didn’t just discover AI — they’ve been

living in this space and having an impact far before the general population knew what the impact might be.”

Watch employers

Deans and department heads routinely meet with employers to hear about their needs. Companies also size up academic programmes and the students who come from them.

University officials see hiring as a real-world indicator of academic quality, so as these new programmes mature, ask about job placements and employer interest.

Simone Ludwig, who chairs North Dakota State University’s computer science department, said it would be obvious to companies which schools were turning out deficient students.

Whether AI should be a stand-alone degree instead of a specialisation within computer science has been a subject of immense discussion in academic circles. A Computing Research Association newsletter described a debate about it at a conference last year as “one of the week’s most anticipated events”.

“I’m sceptical of that level of specialisation being necessary,” Lisa Meeden, a professor at Swarthmore College, US, on the conference panel, said in an interview. “I feel like there’s so much more to understand about computer science than just what’s happening in AI — and I am a person who has been doing AI for 32 years.”

Supporters of AI degrees argue, though, that programmes tailored to contemporary needs will better serve students and society.

“I don’t think it’s a fad,” said Andrew Armacost, president of the University of North Dakota, US. Universities, he argued, need a role in AI “to offer balance, and to say we want to be involved in the creation of new tech — but in an ethical way”.

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