Where are the new AI jobs? Just ask AI

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Credit: John-Mark Smith from Pexels

Together, D.C., Virginia and Maryland lead the nation in the percentage of job postings requiring artificial intelligence (AI) skills, and overall, the D.C. region is the second-biggest hub of new AI jobs, according to a new mapping project led by University of Maryland researchers.

The team led by Anil Gupta, the Michael D. Dingman Chair in Strategy and Entrepreneurship, and its partners at job data tracker LinkUp and consulting company Outrigger Group created the interactive website UMD-LinkUp AI Maps to track and visualize the spread of jobs requiring skills in AI across the country: by sector, state and more granular geographic levels. Ultimately, the tool offers new insight into the question: How will AI change the world of work?

"In short, we are using AI to track the dispersion of AI jobs," Gupta said.

The handful of recent research papers on the subject have relied on keyword-based approaches to identify jobs requiring AI skills, resulting in up to 70% false positives. UMD-LinkUp AI Maps uses a fine-tuned large language model, which filters AI jobs with an accuracy exceeding 90% when compared against time-consuming manual checks by researchers.

An analysis of initial findings is available in the "From West to the Rest" white paper, which shows, unsurprisingly, that AI jobs are on the upswing, despite a decline in IT jobs in general.

Reflecting Silicon Valley's long-held role as the world's epicenter of digital technologies, California continues to dominate AI job postings in overall totals. But there is unmistakable evidence of accelerating geographic spread in AI postings over the last five years.

In terms of the "intensity" of AI job postings, or the ratio of AI to all job postings, Washington, D.C., comes out on top (1.75% compared to the aggregated U.S.-level of 0.56%), thanks to the concentration of federal agencies and defense and aerospace contractors that have embraced the new technologies. Virginia followed at 1.36%, with Maryland not far behind at 0.82%.

Out of all the AI job postings in the United States, 12.65% are in the D.C. region, second only to the 19.03% in California.

The tool also found a greater geographic dispersion in both AI and IT job postings, which is excellent news, said Jon Norberg, chief strategy officer at LinkUp and project co-lead. He said says AI Maps will be a vital tool in analyzing such AI-powered economic shifts.

"What's most exciting is that every week brings new ideas for exploring how AI jobs are going to integrate into the economy and what skills and technologies are going to advance or decline as AI becomes integral to more employers," he said.

"The productivity enhancements created by AI will be profound, and knowing where those productive employees are located is going to be crucial to understanding how the U.S. economy is functioning," said Evan Schnidman, co-founder and CEO of Outrigger Group and project partner.

The team also includes Dean's Professor of Information Systems Siva Viswanathan, Associate Professor Kunpeng Zhang in the Department of Decision, Operations & Information Technologies, and doctoral student Hanwen Shi.

"We envision this as a dynamic platform that can continue to generate important insights about the evolution of AI jobs in the U.S.," Viswanathan and Zhang said.

More information: From West to the Rest. www.aimaps.ai/download/whitepa … t-(white-paper1).pdf

Provided by University of Maryland

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