Indiana Department of Workforce Development Revolutionizes Job Search Process for Indiana Workers with Recommendation Engine

Part of the mission of the Indiana Department of Workforce Development (DWD) is to empower Indiana citizens to thrive in a changing economy. That includes providing unemployed Hoosiers with the right resources and tools to help them find their next job.

"When someone files an unemployment claim, it's stressful. They're trying to figure out the best way to get reemployed," said DWD Chief of Staff Josh Richardson. "That could mean training, new skills, or an occupational change. But it can be hard for those individuals to know what's the best path forward."

While that path might be difficult for any one person to see, DWD has the unique perspective of wage and new hire records. Employers report quarterly wages paid to each of the 3.2 million workers within Indiana, every report representing a chapter in the story of Hoosiers' careers.

DWD realized their own data plus numerous other datasets available from the Department of Education (DOE), the Commission for Higher Education (CHE), and more in Indiana's statewide longitudinal data system (SLDS) could help constituents identify their best path forward through numerous training programs and occupational services toward better career opportunities.

THE PROBLEM

But just because answers lay in the data doesn't mean they're easy to see. DWD needed a way to transform raw information into a tool that would empower unemployed workers.

"We didn't want to add confusion or send people out to another website," Richardson said. "The key point was to make it easier for users to figure out what their path to more rewarding employment might look like."

Richardson saw an opportunity to use Indiana's SLDS in a unique way: By combining data from multiple state agencies to create detailed profiles of workers who had successfully made employment transitions, DWD could create tailored recommendations to help others do the same.

About Indiana Department of Workforce Development

We strengthen Indiana by understanding workforce needs, aligning resources, and providing access to services that empower Hoosiers to thrive in a changing economy.

THE SOLUTION

The DWD called on Resultant to build the Workforce Recommendation Engine (WRE) tool, which the agency branded Pivot. Using SLDS, workforce, and UI data combined with machine learning, this cutting-edge tool makes personalized career and training recommendations to users based on work history, wages, and education attainment. Recommendations are refined by adding other information like median wages, number of job openings in their region, job demand, job description, training duration, and training completion. These data points within their recommendations allow users to make informed decisions and see trade-offs between their top recommendations.

Here's how it works: Using over a decade's worth of SLDS, workforce, and UI data, WRE identifies pathways that other Hoosier workers have followed to find new employment opportunities. It then creates tailored suggestions for current users based on the successful paths others with similar characteristics have taken.

WRE may suggest adjacent career paths or individualized occupational training. Users can also give feedback to further personalize recommendations to those opportunities that most interest them. DWD saves this data and can share it with local workforce boards or better understand why someone may or may not like their recommendations.

The result is a tool that helps individuals find paths toward employment or career shifts that provide job stability, upward mobility, and fulfillment—all driven by data.

THE OUTCOME

The Recommendation Engine went live in November of 2023. WRE has far more engagement than previous tactics like email campaigns because it's built directly into the UI claims system. Richardson has eagerly reviewed feedback on how people have engaged with the recommendations it makes.

"When we show someone an occupation, they can tell us if it's a good match," he said. "We've had thousands of people respond to say yes, this is a job I am interested in."

Helping people make better, more thoughtful decisions about their careers is ultimately the goal of the tool, and one Richardson sees as a worthy investment.

"Ultimately the only measure is, does it make people's lives better? If someone spends a little more time on unemployment because they're taking the time to get training or go after a better career with long-term employment, that's still a better result."

To hear more about WRE, listen to our podcast episode with DWD Chief of Staff Josh Richardson.

Find out more at **RESULTANT.COM.**