

Insurance is hiring for AI The next phase is **workforce transformation**

What 100 insurance job postings reveal about the gap between building AI and putting it to work

Executive summary

Insurers are hiring for AI. The evidence is clear, measurable, and growing. But an analysis of job postings from leading U.S. insurance organisations shows an uneven signal about where the search for AI-related skills is focused.

Across 100 current job postings, 72% of AI, analytics, data science, product, and technology roles explicitly mention artificial intelligence. However, across operating roles from leadership to claims, SIU, underwriting, and subrogation, AI is only mentioned in 6% of listings.

It's clear that insurers are building model infrastructure, data pipelines, decision-support platforms, fraud-detection capabilities, and agentic automation tools at scale. The build-side investment is serious and visible.

But technology adoption in any industry follows a predictable sequence: you build before you operationalise. The construction of AI infrastructure precedes the redefinition of the roles that will use it. That sequencing is normal. It is also where execution risk accumulates.

To better understand how AI is showing up in the insurance workforce, Shift analysed 100 job postings from the career pages of leading U.S. insurance organisations, including major national and regional carriers. The sample covered roles in claims, underwriting, SIU, subrogation, claims transformation, analytics, data science, product, technology, and AI. The analysis is intended to identify patterns in how insurers are describing AI-related workforce needs in current job postings. It should not be interpreted as a comprehensive census of all insurance hiring.

As AI becomes embedded across insurance industry operations, this analysis shows that the roles responsible for using new capabilities have not yet been consistently redefined. Job postings for operating roles still overwhelmingly describe traditional insurance workflows. The AI layer — judgment, exception management, oversight, and governance — is largely absent from the way those roles are described.

This is not a failure of investment, but a predictable gap in the transition from building AI to operating with it. Closing that gap is where AI return on investment will ultimately be won or lost.

Key findings

Across the 100 postings analysed, 18% explicitly mention AI. But that topline figure hides the sharp divide between builders (where 72% of job descriptions mention AI) and operators (where AI appears in only 6% of listings).

At the same time, operating roles remain overwhelmingly grounded in traditional insurance work. Ninety-eight percent of operating-role postings reference traditional claims or insurance skills, and 76% reference human judgment. But only 10% mention exception handling, escalation, QA, or workflow review.

This suggests a developing “last mile” workforce gap: insurers are building AI-enabled systems, but job descriptions for many of the roles that will operate with those systems have not yet caught up.

AI investment is real, but concentrated in builder roles

The research confirms that insurers are not ignoring AI. In fact, it's clear that insurance organisations are hiring for AI-related capabilities.

But they are doing so most visibly in a specific set of roles: analytics, data science, applied AI, product, technology strategy, platform, and software roles. These jobs are responsible for building, managing, or scaling the AI-enabled capabilities that insurers increasingly need.

Role group	Postings reviewed	Explicit AI	Automation / decision support	Digital / data
Insurance operating roles	82	6% (5 of 82)	6% (5 of 82)	41% (34 of 82)
AI / analytics-building roles	18	72% (13 of 18)	39% (7 of 18)	83% (15 of 18)

The contrast is striking. Explicit AI language appears in nearly three-quarters of AI and analytics-building roles, compared with only a small fraction of operating roles.

That does not mean operating roles will be untouched by AI. In many cases, the opposite is likely true. As insurers build AI-enabled triage, fraud detection, decision support, automation, and claims-handling tools, those capabilities will ultimately shape the day-to-day work of the people using them.

The leading edge of the transition is visible. The gap lies in how that transition is reflected — or not yet reflected — in frontline operating roles.

Operating roles still overwhelmingly describe traditional insurance workflows

Among the 82 operating roles in the sample, 98% include traditional insurance skills.

These postings continue to emphasise investigation, coverage analysis, documentation, negotiation,

settlement, compliance, customer communication, subject-matter expertise, and knowledge of claims or underwriting processes.

That is not surprising. Nor is it a problem. It is a reflection that insurance is a complex, regulated, judgment-heavy industry where professional expertise continues to matter. Traditional skills will not become obsolete. They will be applied differently.

Skill signal in operating roles	Count	Share
Traditional claims / insurance skills	80 of 82	98%
Human judgment	62 of 82	76%
Digital / data skills	34 of 82	41%
Exception / escalation / QA	8 of 82	10%
Explicit AI	5 of 82	6%
Automation / decision support	5 of 82	6%
Responsible AI	0 of 82	0%

What is notable is the absence of language connecting those skills to an AI-enabled context.

Claims professionals may still need to investigate, evaluate, negotiate, and settle claims. Underwriters may still need to assess risk. SIU investigators may still need to identify suspicious patterns and determine when a deeper investigation is warranted. Subrogation specialists may still need to identify recovery opportunities and manage liability disputes.

But as AI becomes more embedded in these workflows, the work increasingly involves a new layer of responsibility: reviewing AI-supported recommendations, interpreting system-generated insights, managing exceptions, escalating uncertainty, and explaining decisions that may have been influenced by automated tools.

Current job descriptions do not yet consistently reflect that shift. That is the sequencing gap.

The sequencing gap: Building with AI vs. Operating with AI

Every major technology adoption cycle follows a similar arc. Infrastructure and capability come first. Workforce redefinition follows. The lag between them is predictable, and it is where execution risk concentrates.

Insurers are not behind on AI investment. They are in the transition phase every industry navigates, from building the capability to preparing the people who will use it.

The data shows this gap clearly across three dimensions:

Signal	Operating roles	AI / analytics-building
Explicit AI	6%	72%
Digital / data	41%	83%
Responsible AI	0%	11%

The gap is largest for explicit AI language (6% vs. 72%) and responsible AI (0% vs. 11%). Digital and data skills show a smaller but still significant gap (41% vs. 83%), with operating roles showing more progress in this area than in AI-specific language.

This points to a “last mile” execution challenge.

In technology, the last mile is often where a system moves from build to use. In insurance AI, the last mile may be the workforce itself: the claims handler, underwriter, fraud investigator, subrogation specialist, team lead, or manager who must apply AI-supported insights in real-world decisions.

This is especially important as insurers move toward more agentic AI capabilities. In insurance, agentic AI can automate complex workflows, shorten cycle times, gather evidence, and free experts to focus on exceptions. But that model only works when paired with human-in-the-loop checkpoints, governance, integration rigor, operational controls, and explainability.

Those systems require people in operating roles who understand how to work with AI outputs. They do not need to become data scientists. But they will increasingly need to know how to validate, question, escalate, document, and explain AI-assisted decisions.

Human judgment is already central, but rarely connected to AI workflows

One of the most important findings is also one of the most encouraging: insurers are already hiring for human judgment.

Across all 100 postings, 79% include judgment-related language. Among operating roles, 76% reference judgment, discretion, complex decision-making, investigation, negotiation, escalation, or problem-solving.

That matters because AI does not remove the need for human judgment in insurance. It changes where and how judgment is applied.

As AI systems take on more data gathering, triage, pattern detection, summarisation, and recommendation support, human professionals may spend more time on the moments where judgment matters most: complex claims, disputed liability, suspicious activity, ambiguous policy language, sensitive customer situations, regulatory concerns, or cases where the system lacks enough confidence to proceed.

Yet the same operating-role postings that emphasise judgment rarely connect it to AI-assisted work.

Operating-role signal	Count	Share
Human judgment	62 of 82	76%
Explicit AI	5 of 82	6%
Automation / decision support	5 of 82	6%
Responsible AI	0 of 82	0%

This suggests that the insurance professional of the future may not need a completely new skill set. Instead, insurers may need to reframe existing skills for an AI-enabled environment.

Judgment becomes the ability to assess whether an AI-supported recommendation makes sense in context. Investigation becomes the ability to decide what additional information is needed when a system flags a claim, policy, provider, or network.

Communication becomes the ability to explain a decision clearly and empathetically, even when digital tools helped shape the path to that decision.

This is where AI may help address one of insurance's most persistent workforce challenges. Agentic AI can help bridge the industry's talent gap by automating mundane and repetitive work, allowing employees to focus on higher-value tasks. It can also help less-experienced employees benefit from the organisation's collective knowledge.

That idea aligns with a pattern that emerged in the research. AI references were rare in claims-related postings, but some entry-level claims roles specifically mentioned willingness to use or be trained on AI.

That may be an early signal of where the market is heading. Insurers may not always hire AI skills directly into operating roles. They may build those skills through onboarding, internal training, workflow design, and the tools themselves.

If so, the next question is: how visible is that upskilling strategy in how roles are defined?

Exception management: the underdeveloped skill for an AI-enabled workforce

If AI changes the insurance workforce as expected, exception management should become more central.

AI-enabled systems are well-suited to support triage, routing, summarisation, anomaly detection, fraud detection, recovery identification, and recommendation generation. That means human professionals may increasingly focus on cases that fall outside the routine: complex claims, edge cases, sensitive decisions, conflicting information, uncertain liability, suspicious activity, unusual recovery opportunities, or cases in which an automated recommendation requires review.

Yet exception-oriented language remains limited in the job postings reviewed.

Only 11 of 100 postings (11%) mention exception handling, escalation, QA, or workflow review. Among operating roles, the figure is nearly identical: 8 of 82 postings (10%).

That is a meaningful gap. If AI increasingly handles more routine tasks, then the human role should be described less as manual processing and more as guided oversight, quality control, escalation, interpretation, and exception resolution.

This may be one of the clearest opportunities for insurers. Job descriptions do not need to overstate AI. But they can begin to describe the work more accurately: not just processing claims, investigating facts, or managing files, but resolving the exceptions and uncertainties that AI-enabled workflows surface.

Responsible AI has not yet moved into operational job descriptions

Responsible AI language is rare in insurance job descriptions.

Across the 100 postings analysed, only 2% mention responsible AI concepts. Within operating roles, responsible AI did not appear in any postings. Among AI/analytics-building roles, it appears in 11%.

Role group	Responsible AI
Operating roles	0 of 82 / 0%
AI / analytics-building roles	2 of 18 / 11%
Full sample	2 of 100 / 2%

At one level, this is understandable. Concepts like explainability, transparency, auditability, model governance, and responsible use of AI are often associated with technical, legal, risk, or compliance teams.

But as AI becomes embedded in insurance workflows, responsible AI cannot remain only a technical concern.

A claims professional may need to know when to question an AI-generated recommendation. An underwriter may need to understand when a risk signal requires additional evidence. An SIU investigator may need to document how an alert contributed to the decision to investigate. A subrogation specialist may need to explain why an opportunity was pursued or not pursued. A team lead may need to know when to escalate a workflow because the system lacks confidence or context.

Human-in-the-loop design, transparent and auditable actions, governance, and operational controls do not stop at the model or platform level. They must be reflected in the workflows — and eventually in the responsibilities — of the people using AI-supported systems.

The lack of responsible AI language in operating-role postings suggests that many insurers may still be defining responsible AI as a technical implementation issue rather than an operating model issue.

That may need to change.

Where AI language is entering the insurance workforce first

The role-family view shows a clear sequencing pattern: AI language enters through transformation, product, analytics, and technical functions first, then moves toward frontline roles.

Role family	Postings reviewed	Explicit AI	Automation / decision support	Digital / data	Human judgment
Claims handling / operations	67	3 / 4%	1 / 1%	26 / 39%	48 / 72%
Underwriting	6	0 / 0%	0 / 0%	1 / 17%	5 / 83%
SIU / subrogation	6	0 / 0%	2 / 33%	4 / 67%	6 / 100%
Claims transformation / leadership / product	3	2 / 67%	2 / 67%	3 / 100%	3 / 100%
AI / analytics-building roles	18	13 / 72%	7 / 39%	15 / 83%	17 / 94%

The pattern is instructive. Claims transformation and leadership roles already show strong AI signals (67% explicit AI), suggesting the organisational bridge between AI builders and operating teams is being built. SIU and subrogation roles show stronger digital and data language than claims or underwriting, likely reflecting their connection to investigation, fraud signals, and pattern detection.

Frontline claims handling and underwriting postings remain comparatively light on explicit AI language. These roles represent the largest share of the operating workforce and, ultimately, the largest share of exposure to AI-enabled workflows.

The sample sizes for some role families are small, and the role-level findings should be read as directional. But the sequencing pattern is consistent with how technology adoption typically works: transformation and leadership roles are redefined first; frontline roles follow.

The practical question for insurers is how to accelerate the timeline for frontline roles — not because they are behind, but because the AI systems being built today will reach those roles faster than past technology cycles suggest.

What this means for insurers

The findings point to a practical conclusion: insurers do not simply need more AI roles. They need clearer AI-era operating roles.

That does not mean every claims handler, underwriter, SIU investigator, or subrogation specialist needs to become a technologist. It means job descriptions, training programs, and management expectations should begin to reflect how insurance work changes when AI becomes part of the workflow.

The most immediate opportunity may be to update the language of operating roles in five areas.

1. AI-enabled judgment

Operating roles should increasingly describe the ability to evaluate AI-assisted insights in the context of claim facts, policy language, customer circumstances,

liability, risk, and regulatory requirements.

The important skill is not accepting AI outputs at face value. It is knowing how to use them as decision support.

2. Exception and escalation management

If AI handles more routine processing, human professionals will increasingly manage the cases that require context, empathy, expertise, or discretion.

Job descriptions can make this explicit by emphasising exception handling, escalation, uncertainty resolution, quality review, and complex-case management.

3. Digital and workflow fluency

Only 41% of operating roles in the sample reference digital or data skills. That may need to grow as more work moves through digital claims platforms, analytics dashboards, AI-supported triage, and automated workflows.

Digital fluency does not require coding. It requires comfort working with systems that surface, prioritise, and contextualise work.

4. Explainability and documentation

Insurance decisions must be documented, defensible, and understandable. As AI-supported insights enter the workflow, professionals may need to document how decisions were reached, when recommendations were accepted or challenged, and why a case was escalated.

This is where human judgment and responsible AI meet.

5. Responsible use of AI

Responsible AI should not be limited to technical teams. Operating roles may increasingly require awareness of transparency, auditability, fairness, governance, and human oversight.

The practical version is simple: employees need to know when to trust, when to question, when to escalate, and how to explain.

A framework for AI-ready insurance roles

Based on the findings, insurers may want to begin adding AI-ready language to job descriptions for claims, underwriting, SIU, subrogation, and claims leadership.

A future-ready operating role might include responsibilities such as:

- Review AI-assisted recommendations, risk signals, fraud indicators, or recovery opportunities in the context of claim facts, policy language, and customer circumstances.
- Validate system-generated insights before applying them to claims, underwriting, SIU, or subrogation decisions.
- Identify exceptions, uncertainties, conflicting information, or edge cases that require escalation or additional review.
- Document decisions clearly, including how digital tools, analytics, or AI-supported insights informed the outcome.
- Explain decisions to customers, internal stakeholders, and partners with clarity, accuracy, and empathy.
- Apply human judgment when automated workflows or decision-support tools reach their limits.
- Follow governance, compliance, auditability, and responsible AI expectations when working with AI-enabled systems.
- Participate in continuous learning as AI tools and workflows evolve.

This type of language does not turn an adjuster into a data scientist or an underwriter into an engineer. It does something more practical. It clarifies how traditional insurance expertise is changing in an AI-enabled environment.

Conclusion: The next phase of AI readiness is human

Insurers are hiring for AI. The evidence is clear from the data.

Nearly three-quarters of builder roles are defined around AI: analytics, technology, data science, product, and AI-focused positions. In operating roles, job postings still overwhelmingly emphasise traditional insurance expertise and human judgment. That is not a weakness. It is a reminder that insurance remains a human decision business, even as it becomes more automated.

The challenge is that the human role is changing.

AI can gather evidence, detect patterns, summarise information, route work, identify anomalies, and support recommendations. But people will still need to interpret context, manage exceptions, resolve uncertainty, document decisions, preserve empathy, and maintain trust.

That is the next workforce challenge. Not just hiring people who can build AI, but preparing the people who will operate with it.

For insurers, the opportunity is to make that future visible now — in job descriptions, training programs, onboarding, leadership expectations, and workflow design.

The future insurance professional will need to be an AI-informed decision-maker. This is someone who can validate, interpret, escalate, explain, and govern AI-assisted decisions.

Methodology note

Shift analysed a sample of 100 current job postings from the career pages of leading U.S. insurance organisations, including major national and regional carriers. The sample covered claims handling and operations, underwriting, SIU and subrogation, claims transformation and leadership, product, analytics, data science, technology, and AI-related roles.

Each posting was manually reviewed for references to explicit AI skills, automation and decision-support language, digital and data skills, traditional insurance skills, human judgment, exception management, and responsible AI.

For analysis, postings were grouped into two broad categories: insurance operating roles and AI / analytics-building roles. Operating roles included claims, underwriting, SIU, subrogation, and claims transformation or leadership positions. AI / analytics-building roles included analytics, data science, applied AI, product, technology, software, and platform roles.

The analysis is intended to identify patterns in how insurers are describing AI-related workforce needs in current job postings. It should not be interpreted as a comprehensive census of all insurance hiring.

About Shift Technology

Shift delivers AI agents that transform insurers' most critical work. By combining deep industry expertise with unrivalled data resources, Shift provides proven results that have earned the trust of hundreds of the world's leading insurers. Our insurance-grade AI is accurate, explainable and secure, empowering human experts to act with unparalleled speed, complete confidence and a renewed focus on the people they serve.

Learn more at www.shift-technology.com/en-gb