DIGICULUM

Whitepaper

—

AI/GenAI Reskilling

Exploring the 12 New Roles

1. Introduction

Whether you like it or not, AI will impact jobs.

The only way to thrive in this onslaught is to reskill. While there is an abundance of AI information available online, it often leaves individuals overwhelmed—unsure of where to begin, where to stop, or how a specific course they enrol in will truly support their AI career.

This white paper addresses that challenge by introducing **12 new AI/GenAI reskilling roles** and guiding you on how to choose the right one. It also lays the foundation by clarifying key terminologies and explaining practical pathways for transitioning from your current role into a new AI/GenAI-focused career.

2. Defining Key Terminologies

There is currently no standardization in defining terms and concepts related to AI and Generative AI, which often leaves them loosely interpreted. In this section, we will clarify the following four key terminologies:

1. Roles, Jobs, Skills, and Competencies
2. AI and Generative AI
3. Upskilling and Reskilling
4. AI Apps, AI copilots, AI agents, and Bots

1. Roles, Jobs, Skills, and Competencies

   Roles are generic and defined at the industry level, whereas jobs are specific to business requirements. For example, a full-stack software developer is a role defined at the industry level. But when a firm requires a full-stack developer with a React frontend and a Node.js backend, the role translates into a job. A job requires skills. For a full-stack developer, skills could include frontend coding in React, backend coding in Node.js, and database integration with MongoDB. Competency reflects the level of proficiency an individual has with these skills. For instance, someone with 7 years of experience across multiple projects is more competent in React and Node.js than someone with only 2 years of experience. The following diagram illustrates this hierarchy more clearly.
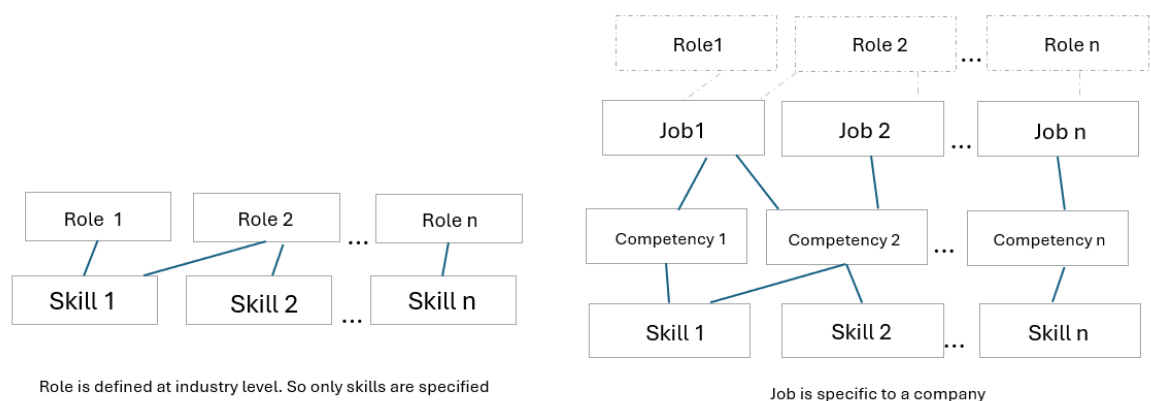

Figure 1: Relation between roles, jobs, skills, and competencies

2. AI and Generative AI

    Traditional AI and Generative AI are often used interchangeably, which can lead to serious miscommunication and scope creep in projects. Traditional AI focuses on six key capabilities: pattern recognition, prediction, classification, facial recognition, text-to-speech/speech-to-text, and personalization. These capabilities are powered by technologies such as machine learning, computer vision, and natural language processing (NLP). However, traditional AI cannot generate new data. That's where Generative AI comes in—driven by Large Language Models (LLMs). Generative AI enables use cases such as creation, summarization, and augmentation. To avoid confusion and misinterpretation, it's always better to explicitly use the term *Generative AI* (or simply *GenAI*) rather than the broad term *AI*.

3. Upskilling and Reskilling

    Upskilling and reskilling are often used interchangeably. Although both imply learning new skills, they have different meanings. In upskilling, you learn a new skill within your current role. The sole purpose is to upgrade your skillsets and move vertically to a new skill level. After upskilling, you stay in the same role. In reskilling, you learn a new skill outside your current role. The sole purpose is upgrade your skillsets to move horizontally or diagonally downward to the beginner level of the new skill. After reskilling, you can either stay in the same role or move to a new role.
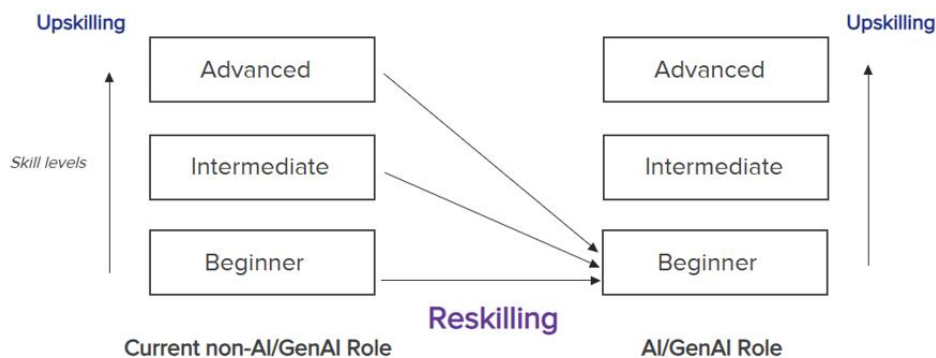

Figure 2: Upskilling v Reskilling

4. AI Apps, AI Agents, AI Copilots, and Bots

    AI apps are new AI applications, tools or software. When you infuse AI in an existing product, it becomes a copilot. For example, Microsoft 365 copilot, Salesforce Einstein, SAP Joule. AI Agents are autonomous entities that sense environment, make independent decisions, adapt dynamically and learn proactively over time. A bot is a software program or application designed to automate tasks, often repetitive ones, with little or no human intervention. The key differentiators between a bot and an AI agent are autonomy, independent decision-making, and proactive learning.

    There are many debates around whether AI agents truly require a Large Language Model (LLM). I firmly advocate that AI agents should be built with an LLM. Without the reasoning, contextual understanding, and natural language capabilities of an LLM, agents remain limited to rule-based execution. An LLM-powered agent, on the other hand, can interpret complex inputs, make adaptive decisions, and deliver far greater business value.

3.   How AI impacts Jobs

AI will impact jobs in the following two ways:

1. Eliminate current roles
2. Create new roles

The creation of new roles is of two types:

a.   Modify current roles: minor, moderate, maximum
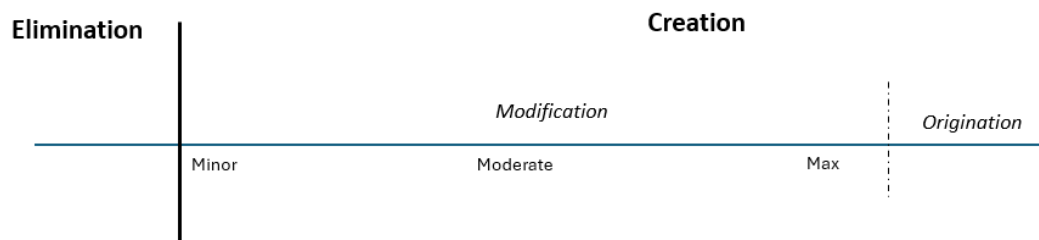b.   Originate new role

Figure 3: Job impact continuum

As shown, there is a thin line between maximum modification and origination. And a hard line between creation and elimination.

4.   12 New AI/GenAI Roles

The 12 new AI/GenAI roles are:

1.   Fine Tuner
2.   Agent Architect
3.   VITA Creator
4.   Data Annotator
5.   DAC Consultant
6.   Sales Advocate
7.   Compliance Guardian
8.   Domain Visionary
9.   Security Specialist
10.   AI Executive
11.   Program Overseer
12.   Infrastructure Catalyst

We shall describe all of them in the following section, state the prerequisites for transition, and the function mappings, divided into the following three categories: natural progression, gradual climb, and steep curve.

4.1 Fine Tuner

The Fine Tuner plays a crucial role in optimizing generative AI models for enterprise use. While base models provide strong general capabilities, they often need adaptation to meet specific organizational needs, industry contexts, or compliance requirements. This role ensures the model delivers accurate, safe, and relevant outputs. It includes three sub-roles:

a) Parameter-tuner: Responsible for adjusting the model's internal parameters and hyperparameters (e.g., learning rates, batch sizes, token limits) to improve accuracy, reduce errors, and optimize performance for specific datasets or environments.

b) Prompt-based tuner: Focuses on designing, refining, and testing prompts to guide the model towards delivering more relevant and precise outputs. This includes prompt engineering, instruction optimization, and the use of prompt chaining techniques.

c) Inference evaluator: Evaluates the outputs of the fine-tuned or prompt-tuned models against benchmarks, business requirements, and ethical standards. This involves measuring accuracy, relevance, bias, and safety to ensure the model is production-ready.

Pre-requisites: Prior technical knowledge or experience required

Function-role Mappings:

Mapping Type	Functions
Natural Progression	Data and AI
Gradual Climb	IT
Steep Curve	Marketing, Sales, Legal, Product Development (technical products), Project management, Business Operations, HR, Finance, Executives/Leadership

4.2 Agent Architect

The role includes development of genAI apps and agents.

The sub-roles are:

a) AI/GenAI app developer: focuses on building generative AI-powered applications that deliver specific business value.

b) AI Agents developer: designs and programs intelligent agents capable of autonomous decision-making and task execution.

c) AI/GenAI solution architect: defines the end-to-end architecture of generative AI solutions, aligning technology with business needs.

d) AI Agent solution architect: specializes in designing multi-agent or single-agent systems, ensuring scalability and interoperability.

e) Integration expert: connects AI agents seamlessly with enterprise applications, APIs, and cloud infrastructure

f) Performance Optimizer: fine-tunes AI models and agent systems to improve efficiency, speed, and cost-effectiveness.

g) Safety & alignment engineer: ensures AI agents operate within ethical, legal, and organizational guardrails while aligning with human intent.

Pre-requisites: Prior software development or technical knowledge is mandatory

Function-role Mappings:

Mapping Type	Functions
Natural Progression	Data and AI, IT
Gradual Climb	Product Development (technical products)
Steep Curve	Marketing, Sales, Legal, Project Management, Business Operations, HR, Finance, Executives/Leadership

4.3 VITA Creator

The role includes creation of new video, image, text, and audio content (VITA) using AI/genAI tools.

This role covers a very broad spectrum of sub-categories related to creativity and design using AI/genAI. Under each sub-categories the following sub-roles can be mapped:

Sub-category 1: Design
a) UX designer: focuses on user journeys, usability testing, and AI-enhanced prototyping.
b) Technical product designer: engineers design of complex technical products
c) Non-technical product designer: includes interiors, fashion, packaging, furniture, jewellery, toys, events & experiences etc.

Sub-category 2: Digital Marketing
a) Content designer: designs and produces blogs, posts, visuals, and assets for campaigns
b) Campaign manager: plans, executes, and monitors end-to-end marketing campaigns
c) SEO/SEM specialist: optimizes content for search visibility and manages paid search campaigns
d) Email marketing specialist: designs, automates, and optimizes newsletters and outreach campaigns
e) Growth hacker: experiments with rapid techniques to boost brand visibility and customer acquisition
f) Performance analyst: measures effectiveness of campaigns using analytics dashboards
g) Brand storyteller: crafts compelling narratives and positioning for digital channels

Sub-category 3: Text heavy sub-roles
a) Copywriter: generates marketing copy, product descriptions, and ad content
b) Content Writer: creates articles, blogs, reports, and scrips for videos, podcasts, or ads
c) Translator: translates text across languages and cultures
d) Editor/proofreader: refines, polishes, and ensures clarity, grammar, and tone consistency
e) Technical writer: prepares manuals, documentation, whitepapers, and instructional guides

Sub-category 4: Image heavy sub-roles
a) Graphic designer – designs logos, banners, posters with AI-powered design tools
b) Illustrator – generates illustrations and concept art with GenAI platforms
c) Brand designer – creates and evolves brand identity through AI-supported visuals
d) Photo editor – enhances, manipulates, or restores photos with AI-based editing tools
e) Infographic designer – translates data into engaging visual representations and boards

Sub-category 5: Audio heavy sub-roles
a) AI music producer: composes original tracks using AI-based music generation tools
b) AI sound designer: creates effects, ambient sounds, and soundscapes
c) AI voice artist: generates voiceovers using text-to-speech with lifelike quality
d) Podcast creator: produces podcasts with AI-driven editing and scripting
e) Audio editor/mixer : cleans, edits, and mixes audio tracks for clarity and quality

Sub-category 6: Video heavy sub-roles
a) Video editor – automates editing, transitions, and effects using AI tools
b) Video creator – generates short-form reels, explainers, or animations with GenAI

c) AI motion graphics designer – creates AI-assisted animations and visual effects
d) Cinematic content creator – uses AI tools to generate cinematic-quality content

Sub-category 7: All VITA Creative Roles
a) AI meme creator – generates viral content and memes with GenAI
b) AI advertising creative – develops ad campaign concepts with AI-generated media
c) AI game designer – uses AI to create characters, storylines, and game worlds
d) Visual effects (VFX) specialist – generates realistic effects using AI in movies/games
e) Social media content creator – tailors AI-generated content for different platforms
f) Generative art creator – produces AI-driven digital artworks and NFTs
g) Virtual reality (VR) designer – designs immersive environments with AI tools
h) Augmented reality (AR) creator – integrates GenAI into AR applications
i) Metaverse content designer – builds AI-generated avatars, environments, and experiences

Pre-requisites: Prior creative or design experience desired but not required

Function-role Mappings:

Mapping Type	Functions
Natural Progression	Marketing
Gradual Climb	Sales, Legal, Product Development (Technical products), Project Management, Business Operations
Steep Curve	IT, Data and AI, HR, Finance, Executives/Leadership

4.4 Data Annotator

The role focuses on developing high-quality datasets and conducting inference evaluation. The core skill required is data annotation, which includes tasks like classification and labeling. However, having inference evaluation skills is highly beneficial. These roles can either be combined — annotate the data, assess the output, and then refine datasets based on the evaluation results, or be segregated.

The sub-roles are:
a) Data annotator standalone: only classifying and labeling data
b) Inference evaluator standalone: only evaluating the output
c) Data analyst: extracts and analyzes annotated datasets and inference results to uncover patterns and provide insights for improving AI/GenAI systems
d) Data scientist: builds models and algorithms using annotated data and inference feedback to optimize AI performance, accuracy, and scalability.
e) Data quality specialist: ensures datasets are accurate, consistent, balanced, and free from bias, verifying annotation standards and conducting audits.
f) Bias & fairness evaluator: focuses on detecting and mitigating bias in datasets and inference outputs to ensure ethical and inclusive AI outcomes.
g) Synthetic data engineer: creates synthetic datasets using GenAI to augment training data when real-world data is limited, sensitive, or unavailable.
h) Annotation workflow manager: designs, manages, and optimizes the end-to-end data labeling and evaluation process, including human-in-the-loop (HITL) pipelines.

i) Evaluation framework designer: develops standardized benchmarks, metrics, and testing frameworks for inference evaluation.

Pre-requisites: Prior experience with data desired but not required

Function-role Mappings:

Mapping Type	Functions
Natural Progression	Data and AI
Gradual Climb	IT, Marketing, Sales, Legal, Product Development (technical products), Project Management, Business Operations, HR, Finance, Executives/Leadership
Steep Curve	NA

4.5 DAC Consultant

This role focuses on offering complete solution comprising data, AI, and cloud. The sub-roles include:
a) DAC solution architect: design and implement overall DAC solution
b) DAC migration expert: manage migrations of data and IT applications cloud
c) DAC engineer: develop, test, and deploy DAC solutions
d) DAC industry SME: develop and deploy DAC solutions to a specific industry
e) DAC infrastructure expert: manage infrastructure for DAC solutions
f) DAC integration expert: integrate and configure DAC solutions into the existing IT environment
g) DAC platform engineer: develop a platform to host DAC applications and solutions

Pre-requisites: Requires technical knowledge and experience with digital transformation technologies such as data, traditional AI, and cloud.

Function-role Mappings:

Mapping Type	Functions
Natural Progression	IT, Data and AI
Gradual Climb	Product Development (technical products)
Steep Curve	Marketing, Sales, Legal, Project Management, Business Operations, HR, Finance, Executives/Leadership

4.6 Sales Advocate

This role requires combined expertise in AI sales and legal. In AI/genAI sales, legal must be involved early in the process—unlike the traditional approach where they step in only after the deal is won to review the contract—because AI solutions raise unique issues around data privacy, IP ownership, compliance, and liability that can impact deal structure and customer trust. These roles can be either combined or offered standalone. The sub-roles are as follows:
a) Account manager: manage customer relationships and P&L
b) AI advocate: offer AI/GenAI legal expertise only

c) DAC sales manager: sell DAC solutions to clients
d) DAC legal advisor: offer legal advice in selling DAC solutions
e) DAC LLM presales expert: offer technical LLM expertise in selling DAC solutions to clients
f) DAC commercial manager: offer commercial expertise in selling DAC solutions to clients
g) DAC sales expert: coordinate between sales, presales, legal, and commercial during DAC sales

Pre-requisites: Prior sales or legal experience required

Function-role Mappings:

Mapping Type	Functions
Natural Progression	Sales, Legal, Product Development (technical products)
Gradual Climb	IT, Data and AI, Marketing, Project Management, Business Operations, Executives/Leadership
Steep Curve	HR, Finance

4.7 Compliance Guardian

This role ensures compliance with Responsible AI (RAI) framework and AI regulations. The sub roles are:
a) Compliance Officer: ensures AI systems comply with laws, regulations, and industry standards
b) Responsible AI Lead: oversees implementation of ethical AI practices across the organization
c) AI Ethics Officer: Focuses on fairness, accountability, and transparency in AI design and deployment
d) IT/AI Auditor: performs audit and risk assessment, management, and mitigation

Pre-requisites: Prior legal, compliance, and risk management experience desired but not required

Function-role Mappings:

Mapping Type	Functions
Natural Progression	Legal
Gradual Climb	IT, Data and AI, Marketing, Sales, Legal, Product Development (technical products), Project Management, Business Operations, HR, Finance, Executives/Leadership
Steep Curve	NA

4.8 Domain Visionary

This role includes offering subject matter expertise in a particular industry. The sub-roles include:
a) Domain expert + AI: offer industry-specific AI solutions or use cases

b) DAC industry transformation expert: strategize and execute an industry-specific DAC transformation program

Pre-requisites: You need to have prior knowledge of domain or industry

Function-role Mappings:

Mapping Type	Functions
Natural Progression	Sales, Executives/Leadership
Gradual Climb	Legal, Project Management, Business Operations,
Steep Curve	IT, Data and AI, Marketing, Product Development (technical products), HR, Finance

4.9 Security Specialist

This role includes safeguarding genAI models, assess vulnerabilities, and preventing attacks. All the sub-roles listed below can use AI/genAI to enhance cybersecurity lines of defences. They include:

a) LLM cybersecurity analyst: designs, implements, and monitors LLM security infrastructure
b) Security operations center (SOC) Analyst: monitors security systems, investigates alerts, and responds to potential security incidents in real time
c) Data security analyst: Protects sensitive data by implementing policies, monitoring access, and preventing breaches.
d) Penetration tester (Ethical hacker): Simulates cyberattacks to identify vulnerabilities in systems before malicious hackers can exploit them.
e) Security architect: Designs and implements secure IT infrastructures and frameworks to protect organizations from cyber threats.
f) Cloud security analyst: Ensures the security of cloud environments by monitoring configurations, access controls, and threat activities.
g) Incident responder: Leads the investigation and mitigation of security breaches, minimizing damage and restoring systems.
h) Network security engineer: Builds and maintains secure network architectures to prevent unauthorized access and cyberattacks.
i) Identity and access management (IAM) Specialist: Manages user identities and permissions to ensure proper access control across systems.
j) Application security specialist: Secures software applications by identifying vulnerabilities and integrating security into development processes.
k) Digital forensics analyst: Investigates cybercrimes by collecting, analyzing, and preserving digital evidence.
l) Threat intelligence analyst: Researches and analyzes cyber threats to provide actionable insights for proactive defence strategies.

Pre-requisites: Prior security or technical knowledge is mandatory

Function-role Mappings:

Mapping Type	Functions
Natural Progression	IT
Gradual Climb	Data and AI
Steep Curve	Marketing, Sales, Legal, Product Development (technical products), Project Management, Business Operations, HR, Finance, Executives/Leadership

4.10   AI Executive

This role includes ensuring AI sales, governance, and compliance. The sub-roles comprises c-suite executives and leaders and managers at L1, L2, L3, and L4 levels.

Prerequisites: Leadership or management experience is mandatory

Function-role Mappings:

Mapping Type	Functions
Natural Progression	Executives/Leadership
Gradual Climb	Sales, Legal, Product Development (technical products), Product Management, Business Operations,
Steep Curve	IT, Data and AI, Marketing, HR, Finance

4.11   Program Overseer

The role includes managing the end-to-end AI/genAI project or product life cycle.
The sub-roles include:
a) AI/genAI project manager: manages the AI/genAI project, a part of the overall program
b) AI/genAI program manager: manages the AI/genAI overall transformation program
c) AI/genAI product manager: manages the AI/genAI product lifecycle

Prerequisites: project/program management experience is desired but not required

Function-role Mappings:

Mapping Type	Functions
Natural Progression	Product Management, Business Operations
Gradual Climb	IT, Data and AI, Marketing, Sales, Legal, Product Development (technical products), HR, Finance, Executives/Leadership
Steep Curve	NA

4.12   Infrastructure Catalyst

This role includes installation and configuration of compute: CPUs, TPUs, LPUs, VMs etc. The sub-roles include:

a) Virtualization & VM specialist: manages virtual machines, hypervisors, and containerized compute environments.
b) Cloud infrastructure engineer: designs and optimizes compute workloads across cloud platforms.
c) HPC (High-Performance Computing) engineer: builds and tunes large-scale compute clusters for AI/ML and scientific workloads.
d) Edge infrastructure engineer: deploys and configures compute resources at the edge for low-latency applications.
e) Resource orchestration specialist: handles workload scheduling, autoscaling, and resource allocation (e.g., Kubernetes)
f) AI accelerator specialist: focuses on specialized chips (TPUs, LPUs, NPUs, FPGAs) for AI/ML acceleration
g) Systems integration engineer: ensures seamless integration of compute with storage, networking, and security layers
h) Performance optimization specialist: tunes compute resources for maximum throughput and efficiency
i) Infrastructure reliability engineer: ensures stability, fault-tolerance, and high availability of compute infrastructure
j) Datacenter manager: manages the datacenter operations

Prerequisites: infrastructure experience is desired but not required

Function-role Mappings:

Mapping Type	Functions
Natural Progression	IT
Gradual Climb	Data and AI, Product Development (technical products)
Steep Curve	Marketing, Sales, Legal, Project Management, Business Operations, HR, Finance, Executives/Leadership

4.13   Role-Job Impact Continuum

These roles can also be mapped to the job-impact continuum we saw in the earlier section, as shown in the diagram below:
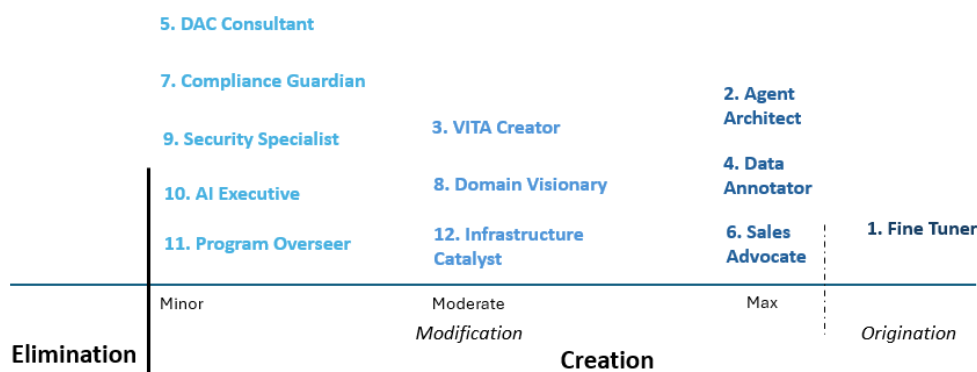
Figure 4: Role-Job impact continuum

Fine tuner is a new role that never existed before; hence it is mapped to the origination category. Agent Architect, Data Annotator, and Sales Advocate roles have a very high component of AI and require heavy reskilling from their existing descriptions; hence they are mapped to maximum modification. VITA Creator, Domain Visionary, and Infrastructure Catalyst are mapped to moderate modifications, as their baseline roles will continue exist with moderate AI component added to them. DAC Consultant, Compliance Guardian, Security Specialist, AI Executives, and Program Overseer are mapped to the minor modification category as the roles contain minor AI component and requires low reskilling.

5. Personalized Continuous AI Reskilling Journey

There are four types of learning journeys in the context of AI/GenAI:
1. Upskilling within current non-AI/GenAI role
2. Upskilling within current AI/GenAI role
3. Reskilling from current AI/GenAI role to new non-AI/GenAI role
4. Reskilling from current non-AI/GenAI role to new AI/GenAI role

The first journey does not involve AI and is therefore out of scope. The fourth journey is a prerequisite to the second journey, while the third journey is its reverse—transitioning out of AI/GenAI. Today, the market shows a strong demand for the fourth journey, making it the primary focus of Digiculum.

Thus, Digiculum's mission is to make this AI Reskilling Journey as personalized and continuous as possible leveraging the best-in-class AI tools and models.