



AI/Gen AI engineer

Designs and develops AI models, algorithms, and systems (including prompt engineering and context engineering) to address specific business challenges

Critical work functions

Key activities

Leadership and strategy implementation

Lead by example and actively contribute to the development and delivery of Gen AI solutions

Drive innovation and excellence within the team

Execute the strategy for Gen AI R&D, aligning it with the bank's overarching goals and objectives

Develop learning roadmaps to support the professional development of the team

Manage the performance and development process, including providing coaching and development opportunities

Coach team members on agile practices and values

Research, development, and model deployment

Lead and participate in research activities to explore and advance state-of-the-art Gen AI techniques and software development

Monitor ongoing research efforts and emerging trends

Ensure AI models, APIs, and websites are successfully deployed into production environments

Develop quality systems to mitigate or prevent failure, enabling early detection of issues

Recommend new technologies, tools, infrastructures, and practices

Cross-functional collaboration and stakeholder engagement

Collaborate with various teams, including product managers and data scientists

Integrate AI technologies into products and services

Work closely with business stakeholders across the bank to drive the adoption of Gen AI and LLMs

Identify opportunities for innovation and value creation

Quality control and testing

Ensure the quality and performance of Gen AI models through rigorous testing and evaluation

Determine quality standards at each stage of the development process

Develop and oversee the execution of quality testing processes and plans

Review test plans and scenarios for compliance with established procedures and guidelines

Develop reports documenting quality testing outcomes for relevant development teams

Software design, development, and security

Design software components and modules for Gen AI solutions

Create multiple views of the software system and design high-level organization

Lead static analysis tasks to evaluate design quality

Identify security risks and create requirements to capture security issues

Perform initial threat modeling and lead code reviews and inspections

Establish project coding standards to avoid security vulnerabilities

Oversee the building, verification, and implementation of software releases

Ensure the execution and documentation of approved changes

Source: SkillsFuture

Skills and proficiencies

Proficiency level: X Technical skills X New Gen AI skills

Technical skill competency (TSC)¹

New Gen AI skills

Software testing	3	Emerging technology synthesis	4	Prompt design	3
Business risk management	3	Quality standards	4	Gen AI principles and applications	3
Applications support and enhancement	3	Solution architecture	4	Gen AI model selection	3
Test planning	3	Process validation	4	Gen AI model evaluation	3
Configuration tracking	3	Agile coaching	4	Gen AI application development and deployment	3
Stakeholder management	3	Quality engineering	4	Gen AI model development and fine-tuning	3
Problem management	3	Process improvement and optimization	4	Responsible AI and Gen AI practices	3
Business requirements mapping	4	Failure analysis	4	Gen AI models technical aspects of security and ethics	3
Project management	4	Agile software development	4	Prompt engineering	3
Software design	4				

1. Per skills taxonomy