

Software engineering manager

Proficiency level

- X New Gen AI skills
- X Transferrable skills at the same proficiency level
- X New skills
- X Transferrable skills at a higher proficiency level¹

Skills Framework track	Product development	Job function	Engineering and tech.	Job family	Software engineer
Sub-sectors	Retail banking, corporate banking, investment banking, private banking and wealth management, asset management, insurance	Expected augmentation by Gen AI	Do more: Gen AI can enhance the development of software and platform roadmaps by automating the analysis of evolving technology trends to inform strategic planning. Gen AI tools can also optimize the analysis of user requirements by analyzing large volumes of data to identify key insights and generate detailed specifications, improving alignment with business needs		

Key tasks that can benefit from Gen AI

Critical work functions	Key tasks
Analyze user and business requirements	Develop business cases, proposals, and communication materials
Develop software and platform development strategy	Develop models and structure changes needed to meet the evolving software and platform strategies Assist in the development of software and platform development roadmap and business plan
Oversee software testing	Evaluate test results to identify opportunities for process improvement Design system test plan and test cases Conduct root-cause analysis and analyze test data to determine necessity for further testing activities
Manage the design of software	Evaluate the effectiveness of the software architecture Evaluate the effectiveness of the application of software design enabling techniques Assess the effectiveness of the application of the selected software design methodology Assess the quality of the software design Provide guidance and direction on the need for requirement changes resulting from design review
Manage software construction processes	Select frameworks, platforms, and environments for individual projects
Manage people and organization	Monitor and track the team's achievements and key performance indicators

New Gen AI skills

Prompt design	3
Gen AI principles and applications	3
Gen AI model selection	3
Gen AI model evaluation	3
Gen AI application development and deployment	3
Gen AI model development and fine tuning	3
Responsible AI and Gen AI practices	3
Gen AI models technical aspects of security and ethics	3
Prompt engineering	3

Potential next-seniority level (Head of software engineering) skills to acquire

Stakeholder management	5	Networking	5	Software design	6
Emerging technology synthesis	5	Product management	6	Solution architecture	5
Applications development	5	Agile coaching	5	Strategy implementation	4
Applications integration	5	Agile software development	6	System integration	6
Continuous integration and continuous deployment	5	Budgeting	5	Test planning	5
Performance management	5	Business innovation	6	Enterprise architecture	4
Quality standards	5	Change management	5	IT strategy	5
Software testing	4	Manpower planning	4	Partnership management	5
Business needs analysis	5	Organizational analysis	5	Infrastructure design	5
Business requirements mapping	5	People and performance management	4		
Project management	6	Service-level management	6		

1. Transferrable skills with an increase in one level of proficiency is considered easier to acquire than transferable skills with multiple levels of increase in proficiency, followed by net new additional skills. Depending on job redesign for the financial institution, the financial institution will have to pick select skills to reskill employees on, via a combination of on-the-job training and existing courses.

Source: SkillsFuture Skills Framework