



AI engineer for agentic AI

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Are you passionate about building sophisticated AI agents that solve real customer problems? We are looking for an AI Engineer to join our Conversational AI unit in the Personal Customers AI Centre of Excellence, where you will design and implement multi-agent workflows that power next-generation self-service experiences for our customers.

About the role

In this hands-on engineering role, you will combine deep LLM expertise with strong software engineering fundamentals. You will design and implement AI agents, enhance our existing AI Assistant with advanced actionable flows and build multi-agent sets that enable customers to resolve queries and complete tasks independently.

You will work with AWS Bedrock, AWS Agent Core and orchestration frameworks such as LangChain and LangGraph, connecting to internal information sources in AWS and Databricks to deliver intelligent, multi-agent conversational experiences.

What will you do:

- Design and implement AI agents, including tool definitions, action groups and knowledge base integrations for conversational workflows, and engineer RAG pipelines that connect agents to internal structured and unstructured data
- Design and build multi-agent sets with orchestration patterns such as routing, delegation, parallelisation and result aggregation to deliver end-to-end self-service capabilities

- Develop prompt engineering strategies, system prompts, memory systems and evaluation frameworks to ensure consistent, hallucination-resistant agent outputs and good performance on relevance, faithfulness, latency and cost
- Write production-grade Python code with full test coverage, structured logging, observability hooks and robust error handling, and contribute to CI/CD pipelines, containerisation and cloud-native development on AWS
- Collaborate with domain experts and product teams to translate customer journeys into agent task decompositions and evaluation rubrics and maintain agent evaluation frameworks to detect regressions as models and prompts evolve
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Your skills and experience

You have:

- 5+ years of software engineering experience, including at least 2 years focused on LLM or AI systems, and experience building and deploying AI-powered applications using Python
- Hands-on experience with AWS Bedrock and at least one orchestration framework (for example LangChain, LangGraph or similar), and a strong understanding of RAG architectures, vector databases (for example FAISS, Pinecone, OpenSearch), embedding models and tool-use or function-calling patterns
- Proficiency in prompt engineering (system prompts, few-shot prompting, chain-of-thought reasoning), familiarity with LLM evaluation frameworks and metrics (relevance, faithfulness, hallucination detection) and experience with MCP servers, APIs and working with data more broadly
- Experience with CI/CD, containerisation (Docker, Kubernetes), cloud-native development on AWS and solid software engineering practices including testing, logging, observability and version control (Git)

It is a plus if you have hands-on AWS Agent Core experience, a background in financial services or other regulated industries, experience with multi-agent systems and complex orchestration patterns or customer-facing chatbots.

You will work primarily with:

- Cloud and AI platforms such as AWS Bedrock, AWS Agent Core and Databricks, Python for implementation, LLM and agentic frameworks including LangChain, LangGraph, Strands, MCP and OpenAI APIs, and DevOps tooling including Docker, Kubernetes, CI/CD and observability solutions
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What we offer

You will work on cutting-edge GenAI projects with real-world impact for millions of customers in a department with a solid track record of scaled solutions. You will join a collaborative, cross-functional team with room for autonomy and a flexible working environment, and you will work in our new headquarters with great facilities.

Interested?

Apply now or reach out to Gry Bærentzen at CGBA@danskebank.dk for more information. Let us build the future of AI together.

Danske Bank

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Løbende jobsamtaler

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