NOVARTIS

Senior AI Engineer

Job ID
REQ-10089992
Ноя. 13, 2026
Чехия

Сводка

Location: Prague, Czech Republic

Working model: Hybrid

#LI-Hybrid

About the role
The Software & Workflows organization partners with scientists, data experts and AI specialists across Novartis Biomedical Research to transform scientific workflows and laboratory processes. Our ambition is to make advanced digital and AI capabilities usable, scalable and impactful, helping teams generate better insights, improve decisions and accelerate the discovery of innovative medicines.

As a Senior AI Engineer, you will own technical delivery on time-bound software initiatives within this portfolio, combining hands-on engineering with design ownership. You will design and deliver production-grade generative and agentic AI solutions that accelerate biomedical research, building scalable, secure LLM applications and agents on AWS.

This is a role for a curious, learning-oriented engineer who can navigate complexity, make thoughtful trade-offs and translate ambiguous problems into focused execution. You will work across engineering, science, architecture, operations and security, ensuring your solutions meet demanding standards for quality, performance, security, compliance and reliability.

What you will work on
You will work on agentic AI for drug discovery, scientific workflow automation and lab-in-the-loop systems. This may include end-to-end solutions such as multi-agent pipelines that accelerate target identification, agents that automate complex research workflows across teams, and lab-in-the-loop systems where AI supports experiment design, interpretation of results and the next iteration of research.

Your focus will be turning emerging agentic AI capabilities into reliable, secure and scalable tools that scientists can depend on.

About the Role

Key responsibilities

- Design and implement production-ready generative and agentic AI solutions on AWS, owning them from design through deployment and operation.
- Build secure RAG solutions with hybrid search, embeddings, reranking, metadata and enterprise knowledge sources.
- Develop intelligent agents using Amazon Bedrock AgentCore and agentic frameworks such as Strands, LangGraph, LangChain, CrewAI or a custom orchestration layer.
- Implement multi-agent workflows, human-in-the-loop review, memory management, tool use and end-to-end traceability.
- Design tool use and function calling so agents can connect securely to APIs, databases and enterprise systems, with MCP preferred where appropriate.
- Create secure APIs and containerized backend services for models, agents, tools and conversational experiences.
- Establish evaluation and observability practices, including test sets for agent behavior, LLM-as-judge or human review loops, tracing with tools such as CloudWatch, OpenTelemetry or LangSmith, and cost and latency monitoring.
- Harden prototypes for production with security controls, guardrails, error handling and CI/CD using CDK or Terraform.
- Build and maintain DevOps and MLOps pipelines, including containerized deployments, infrastructure as code, automated testing and model, data and prompt versioning for reproducibility.
- Champion strong ML engineering practices, including rigorous evaluation, experiment tracking and reproducible pipelines.
- Drive adoption of AI coding tools and provide technical leadership through reusable architectures, coding standards, design reviews and mentoring.

Essential requirements

- 5+ years of professional software engineering experience, including recent hands-on delivery of production-grade LLM and agentic AI solutions.
- Proven experience designing and delivering generative AI, RAG and agentic AI solutions on AWS.
- Strong Python, API development, secure software engineering, testing and containerized services experience.
- Solid DevOps and MLOps experience, including CI/CD, infrastructure as code such as CDK or Terraform, containers and reproducible, well-evaluated ML pipelines.
- Hands-on experience with Amazon Bedrock, agent orchestration, retrieval and grounding, and evaluation frameworks.
- Proficiency with at least one agent framework such as Strands, LangGraph, LlamaIndex, CrewAI or a custom framework.
- Good judgment in solution design, including knowing when a simple workflow is more appropriate than a multi-agent design.
- Strong collaboration and communication skills, with the ability to work across engineering, scientific, architecture, operations and security teams.

Desirable requirements

- Hands-on experience with Bedrock AgentCore, including agent runtime, memory, tool access and identity.
- Experience with MCP clients and servers.
- Experience with AWS services commonly used in agent architectures, such as Lambda, Step Functions, ECS, EKS, API Gateway, DynamoDB, S3 and IAM.
- Fluency with AI coding assistants in a professional engineering workflow.
- Experience in a regulated or life-science environment.
- Awareness of responsible AI, including evaluation, guardrails, privacy, security, monitoring and appropriate human oversight.

At Novartis, we're committed to reimagining medicine together and rewarding the people who make it happen.

Expected Annual Base Salary Range for role: 1,010,940.00 - 1,877,460.00 CZK Annual.

The base salary offered is determined based on gender-neutral objectives, such as relevant skills, competencies and experience in accordance with the Novartis pay setting policy and upon joining Novartis will be reviewed periodically.

In addition to your base salary, you may be eligible for a performance-based bonus depending on certain performance parameters.

The rewards of being part of our team go far beyond base pay and incentives. We also offer a variety of competitive benefits in kind to help you thrive personally and professionally, such as insurance plans, retirement plans, wellbeing resources and global recognition programs. In addition, we provide flexible and hybrid working options, where possible, and a minimum of 14 weeks paid parental leave.

Pay equity is a fundamental principle of our employment policy and reflects our commitment to create a diverse, equitable and inclusive environment that treats all employees with dignity and respect, as outlined in our Code of Ethics.

Benefits and compensation may vary by country and are subject to local legal requirements, including provisions of collective bargaining agreements where applicable. A full overview of your compensation package, including any relevant collective bargaining agreement details applicable to your role based on your employment location and Novartis employer entity, will be communicated separately to you during the application process.

Commitment to Diversity and Inclusion

Novartis is committed to building an outstanding, inclusive work environment and diverse teams representative of the patients and communities we serve.

Why Novartis: Helping people with disease and their families takes more than innovative science. It takes a community of smart, passionate people like you. Collaborating, supporting and inspiring each other. Combining to achieve breakthroughs that change patients' lives. Ready to create a brighter future together?
https://www.novartis.com/about/strategy/people-and-culture

Benefits and Rewards: Learn about all the ways we'll help you thrive personally and professionally.
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Primary location salary range
Kč1,010,940.00 - Kč1,877,460.00
Дивизион
Biomedical Research
Business Unit
Information Technology
Место
Чехия
Сайт
Prague
Company / Legal Entity

CZ02 (FCRS = CZ002) Novartis s.r.o.
Alternative Location 1
Basel (City), Швейцария
Functional Area
Research & Development
Job Type
Full time
Employment Type
Regular
Shift Work
No

Accessibility and accommodation

Novartis is committed to working with and providing reasonable accommodation to all individuals. If, because of a medical condition or disability, you need a reasonable accommodation for any part of the recruitment process, or in order to receive more detailed information about the essential functions of a position, please send an e-mail to di.cz@novartis.com and let us know the nature of your request and your contact information. Please include the job requisition number in your message.

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