🕛 NOVARTIS

Senior Machine Learning Engineer

Job ID REQ-10015292 Aug 01, 2024 Switzerland

Summary

The ML Engineer bridges the gap between the roles of a data scientist, software engineer and DevOps, ensuring the smooth and efficient development and deployment of machine learning models at scale. The role focuses on the operational aspects of machine learning covering model development, training, testing, deployment, monitoring and maintenance.

About the Role

Major Accountabilities:

- Design and implement infrastructure required for deploying machine learning models. This includes setting up cloud or HPC resources, containerization and automation tools for seamless deployment and scaling of models.
- Implementing CI/CD pipelines to automate the testing, versioning, training and deployment of machine learning models. This ensures that models are consistently and reliably deployed without manual intervention.
- Establishing monitoring to track the performance and health of deployed machine learning models. This involves setting up alerts for model failures, monitoring data drift, and conducting regular performance evaluations to optimize model accuracy and efficiency.
- Support the delivery of high-quality data for training and testing machine learning models, applying automated pipelines where appropriate. This includes data preprocessing and versioning to maintain consistency and provenance.
- Working closely with cross-functional teams, including data scientists, engineers, vendors / 3rd party providers, product managers and stakeholders, to understand requirements, provide technical guidance, and communicate progress and outcomes.
- Contribute to evolving the MLOps strategy with the wider community.
- Conduct POC's with new technologies and platforms as need arises, guided by product and data science community.
- Ensure adherence to Novartis global Information Security and Quality standards and policies for all products/services.
- If applicable, ensure Regulatory Compliance (e.g. GLP & GCP) standards and policies for GxP products/services.

Experience Requirements (Core Skills and Capabilities):

 Independent self-starter who takes pride in their work and has a passion for science and engineering and a sharp analytical and problem-solving abilities. Has a strong sense of ownership, urgency, and drive. 1/4

- · Strong written and verbal communications skills
- Experience with Python, R, Bash
- Experience with pytorch, tensorflow or jax
- Experience with CI/CD pipelines
- Experience with Container technologies
- Experience with MLflow
- Experience with AWS including Sagemaker, batch, Fargate, Parallel Cluster, RDS, S3
- Experience with HPC, Slurm or other job schedulers / workload manager
- Experience with Linux
- Experience with RDBMS and SQL

Additional Requirements:

- BS/MS in Computer Science, or commensurate experience
- Fluent in English

Why Novartis: Our purpose is to reimagine medicine to improve and extend people's lives and our vision is to become the most valued and trusted medicines company in the world. How can we achieve this? With our people. It is our associates that drive us each day to reach our ambitions. Be a part of this mission and join us! Learn more here: <u>https://www.novartis.com/about/strategy/people-and-culture</u>

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

Biomedical Research Business Unit Pharma Research Location Switzerland Site Basel (City) Company / Legal Entity C028 (FCRS = CH028) Novartis Pharma AG **Functional Area Research & Development** Job Type Full time **Employment Type** Regular Shift Work No Apply to Job

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