

Senior Machine Learning Engineer

Description

We are looking for a Senior Machine Learning Engineer to join our Knowledge Enrichment team at BenchSci. You will help design and implement ML-based approaches to analyse, extract and generate knowledge from complex biomedical data such as experimental protocols and from results from several heterogeneous sources, including both publicly available data and proprietary internal data, represented in unstructured text and knowledge graphs. You will work alongside some of the brightest minds in tech, leveraging state of the art approaches to deliver on BenchSci's mission to expedite drug discovery. Knowledge Enrichment is at the core of this challenge as it ensures we can reason over and gain insights from an extensive, accurate, and high quality representation of biomedical data. The data will be leveraged in order to enrich BenchSci's knowledge graph through classification, discovery of high value implicit relationships, predicting novel insights/hypotheses, and other ML techniques. You will collaborate with your team members in applying state of the art ML and graph ML/data science algorithms to this data. You are comfortable working in a team that pushes the boundaries of what is possible with cutting edge ML/AI, challenges the status quo, is laser focused on value delivery in a fail-fast environment.

You Will: Analyse and manipulate a large, highly-connected biological knowledge graph constructed of data from multiple heterogeneous sources, in order to identify data enrichment opportunities and strategies. Work with data and knowledge engineering experts to design and develop knowledge enrichment approaches/strategies that can exploit data within our knowledge graph. Provide solutions related to classification, clustering, more-like-this-type querying, discovery of high value implicit relationships, and making inferences across the data that can reveal novel insights. Deliver robust, scalable and production-ready ML models, with a focus on optimising performance and efficiency. Architect and design ML solutions, from data collection and preparation, model selection, training, fine-tuning and evaluation, to deployment and monitoring. Collaborate with your teammates from other functions such as product management, project management and science, as well as other engineering disciplines. Sometimes provide technical leadership on Knowledge Enrichment projects that seek to use ML to enrich the data in BenchSci's Knowledge Graph. Work closely with other ML engineers to ensure alignment on technical solutioning and approaches. Liaise closely with stakeholders from other functions including product and science. Help ensure adoption of ML best practices and state of the art ML approaches within your team(s). Participate in various agile rituals and related practices.

You Have: Minimum 3, ideally 5+ years of experience working as an ML engineer. Some experience providing technical leadership on complex projects. Degree, preferably PhD, in Software Engineering, Computer Science, or a similar area. A proven track record of delivering complex ML projects working alongside high performing ML, data and software engineers using agile software development. Demonstrable ML proficiency with a deep understanding of how to utilise state of the art NLP and ML techniques. Mastery of several ML frameworks and libraries, with the ability to architect complex ML systems from scratch. Extensive experience with Python and PyTorch. Track record of contributing to the successful delivery of robust, scalable and production-ready ML models, with a focus on optimising performance and efficiency. Experience with the full ML development lifecycle from architecture and technical design, through data collection and preparation, model selection, training, fine-tuning and evaluation, to deployment and maintenance. Familiarity with implementing solutions leveraging Large Language Models, as well as a deep understanding of how to implement solutions using Retrieval Augmented Generation (RAG) architecture. Experience with graph machine learning (i.e. graph neural networks, graph data science) and

Hiring organization

BenchSci

Job Location

Toronto, Ontario

Base Salary

\$ 60000 - \$ 110000

Date posted

May 29, 2024

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practical applications thereof. This is complimented by your experience working with Knowledge Graphs, ideally biological, and a familiarity with biological ontologies. Experience with complex problem solving and an eye for details such as scalability and performance of a potential solution. Comprehensive knowledge of software engineering, programming fundamentals and industry experience using Python. Experience with data manipulation and processing, such as SQL, Cypher or Pandas. A can-do proactive and assertive attitude – your manager believes in freedom and responsibility and helping you own what you do; you will excel best if this environment suits you. You have experience working in cross-functional teams with product managers, scientists, project managers, engineers from other disciplines (e.g. data engineering). Ideally you have worked in the scientific/biological domain with scientists on your team. Outstanding verbal and written communication skills. Can clearly explain complex technical concepts/systems to engineering peers and non-engineering stakeholders. A growth mindset continuously seeking to stay up-to-date with cutting-edge advances in ML/AI, complimented by actively engaging with the ML/AI community. Please mention the word **FLOURISH** and tag `RMTAwLjl3LjlwNy45Mw==` when applying to show you read the job post completely (`#RMTAwLjl3LjlwNy45Mw==`). This is a beta feature to avoid spam applicants. Companies can search these words to find applicants that read this and see they're human.

Contacts

Job listing via RemoteOK.com