Towards Explainable and Accessible AI

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Abstract

Large language models (LLMs) have recently achieved human-level performance on a range of professional and academic benchmarks. Unfortunately, the explainability and accessibility of these models has lagged behind their performance. State-of-the-art LLMs require costly infrastructure, are only accessible via rate-limited, geo-locked, and censored web interfaces, and lack publicly available code and technical reports. Moreover, the lack of tooling for understanding the massive datasets used to train and produced by LLMs presents a critical challenge for explainability research. This talk will be an overview of Nomic AI's efforts to address these challenges through its two core initiatives: GPT4All (Anand et al., 2023) and Atlas.

References

Yuvanesh Anand, Zach Nussbaum, Adam Treat, Aaron Miller, Richard Guo, Ben Schmidt, GPT4All Community, Brandon Duderstadt, and Andriy Mulyar. 2023. GPT4All: An Ecosystem of Open Source Compressed Language Models. In *Proceedings of Second Workshop for NLP Open Source Software (NLP-OSS)*, Online. Association for Computational Linguistics.

Biography

Brandon Duderstadt is the founder and CEO of Nomic AI, a series A startup whose mission is to improve the explainability and accessibility of AI. In 2018, Brandon dropped out of his biomedical engineering Ph.D. at Johns Hopkins to join Rad AI, a seed-stage medical generative AI startup. While at Rad AI, he built and deployed transformers that exceeded radiologist performance on a variety of medical summarization tasks. His experiences at Rad AI convinced him of both the profound impact that this new wave of AI technology would have as well as the need to improve the explainability and accessibility of AI models.

Yuvanesh Anand is a freshman computer science student at the Virginia Institute of Technology with broad interests in natural language processing and open-source software development. While still in high school, Yuvanesh joined Nomic AI as a software engineering intern, where he led the data collection and early development of the gpt4all project. He aspires to have an impact at the intersection of industrial AI R&D and open source.

Nomic AI was founded in 2022 by Brandon Duderstadt and Andriy Mulyar with the goal of improving the explainability and accessibility of AI. Nomic currently has two major projects: GPT4All and Atlas. GPT4All is an open-source ecosystem that enables anyone to run open-source language models on any machine. Atlas is a data visualization tool that enables anyone to interact with massive unstructured datasets, like those consumed and produced by AI models, using only their web browser.