



John Snow LABS

BEST MEDICAL APPLICATION OF LARGE LANGUAGE MODELS - 2024

A Look Behind the Curtain with Best Medical LLM Award Recipient, John Snow Labs

But First: Who is John Snow?

Dr. John Snow is known as the "Father of Epidemiology." He was a physician in nineteenth century London known for his investigation of a deadly cholera outbreak. He concluded that the disease was transmitted by contaminated water, and his meticulous data gathering pinpointed the source at a single water pump. When the pump was disabled, the cholera epidemic subsided, marking one of the first examples of using data to improve public health.

Fast forward to 2015 and John Snow Labs was founded to continue his legacy: Helping as many twenty-first century "John Snows" deliver data-driven healthcare. The artificial intelligence (AI) for healthcare company provides state-of-the-art software, models, and data to help healthcare and life science organizations put AI to good use.

John Snow Labs is the developer of some of the most widely used tools to analyze unstructured medical data, including the open-source Spark NLP, the NLP Lab No-Code Platform, the Healthcare GPT Large Language Model (LLM), and the open-source LangTest library for testing LLMs on Responsible AI guidelines. John Snow Labs' award-winning medical AI software powers the world's leading pharmaceuticals, academic medical centers, and health technology companies.

What Makes John Snow Labs Different

John Snow Labs' key promise is to provide state-of-the-art accuracy for AI models that can understand, summarize, and answer questions about free-text medical records and documents. This enables users to build holistic patient journeys, analyze clinical trial results and medical research papers, predict disease progression, accelerate population health efforts, and improve hospital operations. Its models have been repeatedly proven in both peer-reviewed papers and real-world competitive benchmarks to provide superior accuracy compared to competing services, open-source alternatives, and current general-purpose LLMs.

The company is committed to releasing new software every two weeks and has done so since inception. John Snow Labs' speed and consistency in productizing novel AI research innovations is the key behind its ability to provide better accuracy and breadth of functionality over time.

It's not about having a single magical algorithm, but about quickly providing the industry with production-grade versions of the latest AI innovations every week. This led the company to provide healthcare-specific deep learning based natural language processing (NLP) models six years ago, and healthcare-specific GPT models last year.

Another differentiator is the company's investment in responsible AI. This is a challenging but important stance in today's mostly unregulated AI landscape. John Snow Labs has a full team building the LangTest open-source library which can generate and run over 100 test types to comprehensively evaluate LLMs, and has released dozens of AI models with improved robustness as a result.

The team is also involved in the Coalition for Health AI (CHAI), a non-profit group writing guidelines for the safe and effective application of AI in Healthcare. John Snow Labs' CTO, David Talby, has been a co-lead of CHAI's fairness and equity workgroup.

John Snow Labs has never raised capital and has always been profitable, thanks to an ever-growing customer base. This enables the company to focus completely on customer success, in contrast to having to balance investor and customer pressures, or prioritize short-term financial goals over long-term strategic goals.

One of these long-term goals is to grow a collaborative global community, which is why the company hosts two free annual industry events, The NLP Summit and the Healthcare NLP Summit, bringing together thousands of the brightest minds in AI. The NLP Summit is designed for practitioners, so they can learn from each others' successes, failures, and best practices.