## Best Healthcare Al Company 2021



Recognized as the Best Healthcare AI Company in 2021, John Snow Labs provides state of the art software, models and data to aid healthcare and life science organizations build, deploy and operate AI projects. Beyond its industry leadership in Natural Language Processing (NLP) for Healthcare and Life Sciences, John Snow Labs is also a community and open-source leader in AI space. The company is the developer of the widely popular Spark NLP library, which surpassed 10 million downloads in 2021, and the organizer of the NLP Summit, which attracted over 10,000 attendees this year.

John Snow Labs was named after Dr. John Snow, a London physician during the reign of Queen Victoria. In 1854, Dr. Snow played a crucial role in ending a cholera outbreak in London. He did so by analyzing data: He built a map where the infected and deceased people were located, circling in on a local public water pump that many of the patients had used. With this finding, the pump was then removed, and the outbreak subsided.

This was one of the first examples of using data to improve public health – what we call today 'data mining for actionable insights' – and it earned John Snow recognition as the father of epidimiology. Two centuries later, John Snow Labs carries forward the legacy and mission of helping healthcare innovators put data to good use.

John Snow Labs is most widely recognized as the developer of the open-source Spark NLP software library. In 2021, the library surpassed 10 million downloads and its adoption has quadrupled to 1.3 million downloads per month. Spark NLP has full API's in Python, Java, and Scala, as well as an ecosystem of 4,000+ pre-trained models – all free and supported – and 300+ public code notebooks and demo applications.

The company also provides free community support, training & certifications, and tutorials in major Al industry conferences. John Snow Labs is also the organizer of the NLP Summit and Healthcare NLP Summit – the largest industry conferences for the applied NLP community, which have attracted over 10,000 attendees this year. The conferences are free, virtual, and share lessons learned from real-world projects & open-source tools across all industries.

Funding this immense community and open-source contributions are the company's two commercial software products: Spark NLP for Healthcare and Spark OCR. John Snow Labs is the undisputed category leader in Healthcare NLP, with a market share of 60% according to recent industry surveys. A few of the companies who have shared public case studies of production deployments with the software include multinational pharmaceuticals (Roche, Merck, Novartis), major healthcare systems (Kaiser Permanente, Providence Health, Mount Sinai Health System), and health IT companies (GE Healthcare, Omny Health, SelectData).

Spark NLP for Healthcare stands out in three areas. First and foremost is its accuracy: The library was the first to productize many of the novel research results in deep learning and transfer learning. It has several peer-reviewed papers, shared along with reproducible code, that show it achieving new state-of-the-art accuracy in a variety of common NLP tasks include clinical entity recognition, biomedical entity recognition, relation extraction, negation detection, and de-identification. Spark NLP is trainable & tunable by design – enabling customers to best match their own datasets and goals.

Second, Spark NLP for Healthcare is backed by not only a team of data scientists, but also a team of medical doctors and pharmacists. They provide clinical guidelines and annotated data that is used to train & validate models. Since there's a wide gap between public



## "John Snow Labs has become the undisputed category leader for Natural Language Processing in Healthcare"

academic datasets and real-world medical documents, and since there is no training data for many common tasks (like extracting social determinants of health, tumor characteristics, or radiology outcomes) – having proprietary, clinician-vetted datasets on top of state-of-the-art algorithms is a required & winning combination.

Third, Spark NLP for Healthcare is designed for the strict privacy, security, and compliance requirements of the global healthcare & life science industries. The software is designed to run in air-gap environments, and requires no data sharing with John Snow Labs or any third party. It also runs on customers' infrastructure, making it easy to comply with data residency regulations and fit in with each customer's security architecture & privacy controls.

John Snow Labs innovates quickly – and in October 2021 celebrated four straight years of releasing new software every two weeks. The company has also built new sales and marketing teams this year, and has established a new Customer Success group to better guide each customer from first steps to reliable production use.

The combination of superior accuracy, medical domain expertise, and widespread validation in real-world production deployements have turned John Snow Labs from a newcomer to a market leader in a few short years. Given how fast-growing the Healthcare Al & NLP markets are, John Snow Labs' momentum will likely continue for years to come.

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