SpringML

Get More Value from Your Medical Device Data

Machine Learning for Medical Device Manufacturers

As a medical device manufacturer, you know that the products you make generate vast amounts of valuable data on patient health, product effectiveness, usage trends, marketing and sales opportunities, and much more. The data generated from these devices can be put to use to deliver continuous improvements in design, production, sales, and service. This can help facilitate safer patient care and better patient outcomes.

SpringML is here to help you get the most out of your data with artificial intelligence and machine learning technology and services. We start by first understanding your business problem and consolidating your view of data across all relevant facets of operations – from R&D, marketing, and manufacturing to field operations, customer service, and maintenance – all on secure, trusted cloud platforms.

We then build and apply learning algorithms that use your data – structured and unstructured – to drive insights that can help you improve processes, enhance customer experiences, and improve the lives of patients.

Insight from every data point – from device sensors to radiological images

ML can be applied to device-generated data for a wide range of use cases. Here are just some of the examples with which SpringML can help your organization:

Patient monitoring

Pulling in data from implants and even consumer-grade wearables such as Fitbits, you can now monitor patients in real-time – generating insights that no human could uncover on their own. With help from SpringML, you can now build and deploy ML algorithms that analyze new contextual data from devices in light of historical data to detect patterns and anomalies in real time. From variations in human speech to a confluence of unique biomarkers that may indicate concern, you can detect and even predict medical problems, enabling you to take action sooner for better patient outcomes.
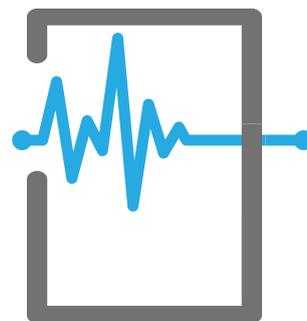
Medical imaging analysis

By analyzing radiology scans with ML, you can dramatically improve diagnostic accuracy. SpringML can help you train ML algorithms on available scans for almost any organ (eyes, lungs, liver, pancreas, etc.) where the disease state is determined and labeled. From there, any x-rays produced by your customers can be run through the algorithm to identify evidence of tumor growth or other developments – all at accuracy rates that exceed those of even the most talented medical specialists. This is just one illustration of improved diagnostics through the power of ML – which can be applied across a wide range of other uses cases from detecting cancerous tumors to analyzing broken bones.

Automated compliance reporting

Using ML to detect out-of-bounds conditions based on device sensor data and critical KPIs, you can trigger automated reporting to the FDA and other agencies as required. This helps you build stronger relationships of trust with regulatory authorities while helping you to continuously improve the devices you make.
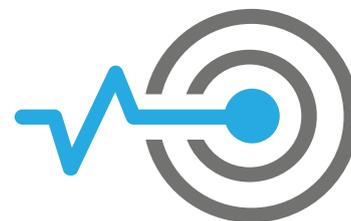
Increased Value and Leads from Sales and Marketing Activities

Beyond patient monitoring, disease detection, and regulatory compliance, leading medical device manufacturers are looking to ML to help improve sales and marketing across a spectrum of activities. Some examples include the following:

Sales forecasting

SpringML can help you apply ML techniques to enhance your data-driven sales forecasting. During a marketing campaign, for instance, you can monitor effectiveness in real time by analyzing data from social media channels and major marketing solutions and platforms (Salesforce, DMP, Datorama, HubSpot, and more). This can help you better target the right buyers and increase the number of sales-qualified leads. As new data becomes available, our ML algorithms constantly update any impacted campaigns or sales forecasts so that sales and production teams can better coordinate around planning and resources.
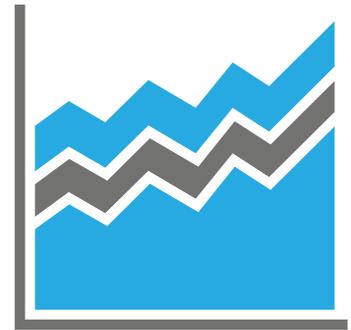
Brand affinity analysis

ML can also be used for brand affinity analytics. Data on how your devices are used can be combined with social media data to track patient and clinician sentiment. This can be a valuable source of information when it comes to understanding what the market wants from your company and how you can make design and processes changes to drive greater satisfaction and loyalty.

Trend and usage analysis:

Across a wide range of scenarios, SpringML can help you track how your devices are being used by patients and healthcare providers. Such analysis can reveal new use cases that can impact ongoing design modifications or simply help you keep pace with demand through the monitoring of potential stock outs in the supply chain – either for the devices themselves of for any consumables associated with them. The result is a better customer experience that drives ongoing business.

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Get the Most Out of Machine Learning with SpringML

From data to knowledge to wisdom. From reactive to predictive to prescriptive. If you're on the road to machine learning and insight from data, SpringML is there with the talent, know-how, and offerings to help you reach your destination.

No company is better prepared to help you seize the advantage with ML in healthcare and life sciences than SpringML. When you partner with us, you get the experience and expertise of a global systems integrator – one with a proven record of helping Fortune 500 companies realize ML value. Our solutions are implemented at more than 150 customer sites worldwide.

Learn More

To get started or learn how you can get more value from data with ML technology, visit us at:

🌐 www.springml.com/healthcare   📞 1.800.346.8260