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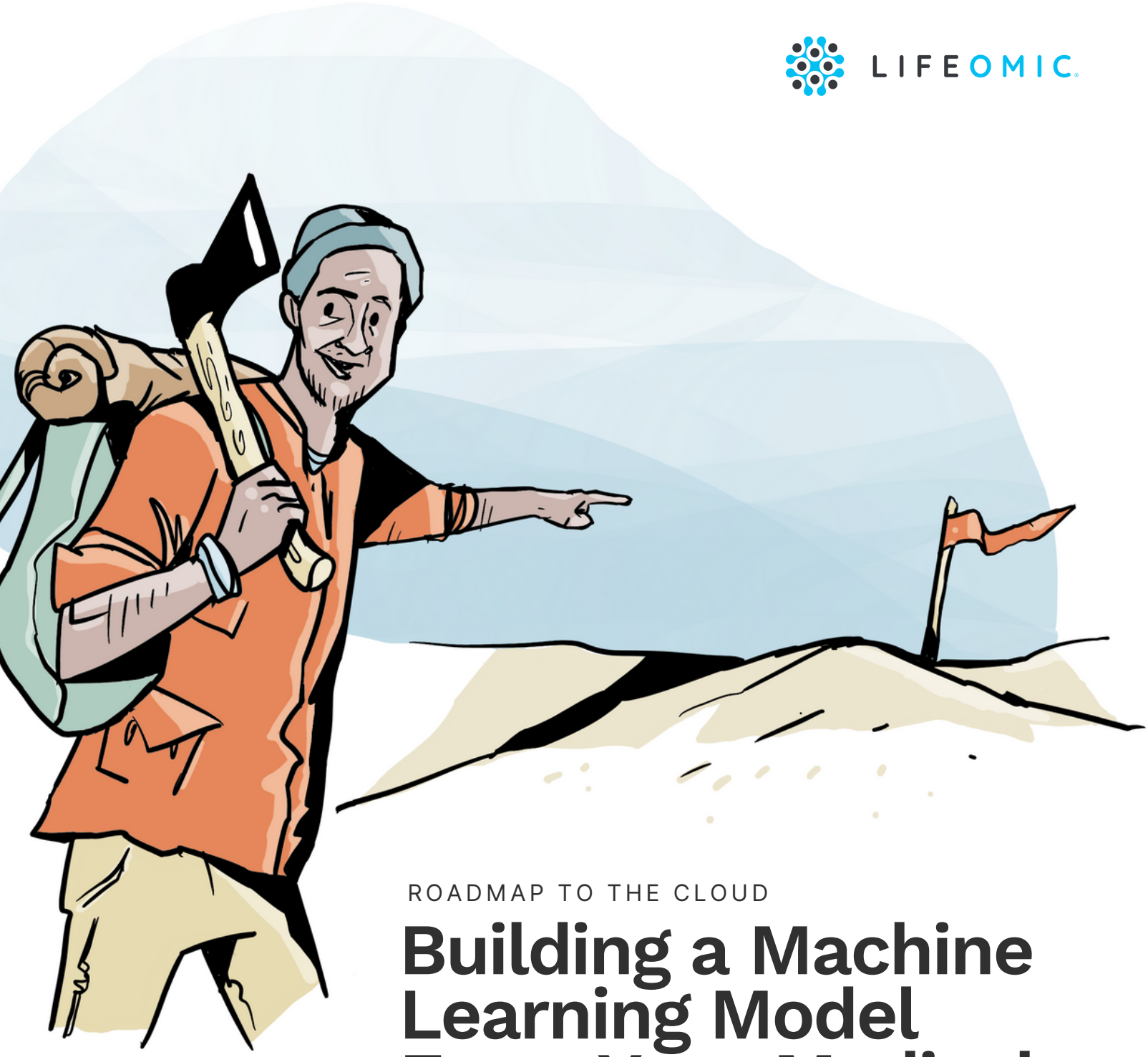

ROADMAP TO THE CLOUD

Building a Machine Learning Model From Your Medical Device Data

lifeomic.com

Partnering with LifeOmic allows you to focus on building your product and accelerating its speed to market. We know the terrain and have already taken care of HIPAA-compliant cloud storage, HITRUST certification, data labeling tools, machine learning pipelines and much more.

ROADMAP TO THE CLOUD

US

YOU

TOGETHER

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1. BUILD YOUR DEVICE

2. DEVICE CLIENT

3. MIGRATE TO CLOUD STORAGE

4. ADOPT HITRUST FRAMEWORK

5. COLLECT DEVICE DATA

6. LABEL DATA

7. TRAIN A MODEL

8. USE YOUR MODEL

9. CONSTANTLY IMPROVE

1: You Designed an Innovative Medical Device

Well done! You are in a small but mighty group of cutting-edge companies forging the way in the healthcare industry. You now need to navigate the uphill climb of implementing secure patient/user data storage without creating an avalanche of work for you and your team. You have a choice. Make the long trek on your own or rely on a partner that knows the terrain and has already paved the way.

2: You Need Device Client Registration & Authorization

The first stop on your journey is to design and implement a solution for how devices are authorized to send data to your account. You don't want to allow any slack for a device to send data into your system. You'll want to take the lead on what actions devices are allowed to do. LifeOmic can take care of these items so that you can concentrate on what you're good at, building your device and bringing it to market.

3: Let’s Talk About Cloud Storage

We'll never tell you to get your head out of the clouds. In fact, we think all your data should live there.

Future-proof your medical device with LifeOmic’s secure, HIPAA-compliant cloud storage that makes data sharing a walk in the park. Because the cloud can be used collaboratively in so many capacities, med device creators are increasingly turning to the cloud for its cost effectiveness, scalability, and flexibility.

4: The Crux of Your Journey: HITRUST Certification

You’ve come a long way, baby! Welcome to the crux of your journey. You know you need to demonstrate your organization has met the gold standard for compliance to bring peace of mind to your business, customers, and partners.

However, because of its complexity, HITRUST certification can be a massive undertaking that requires a significant amount of time, money, and resources. Don’t worry, we’ve done the work for you.

The LifeOmic Platform was built to handle the most complex types of data, was architected with the highest security in mind, and is already HITRUST compliant.

5: Start Your Machine Learning Journey with Data Collection

The first step in the machine learning process is to collect data for training. This can be done by either buying a large training set, or by collecting data from your device directly. You put the data in our system to safely hold.

Make sure to get a wide range of data with as few biases as possible. Your training data needs to reflect the data that you will use in production.

6: Data Labeling is an Important Step for Your Large Training Set

The large training set needs to be 'labeled'. Before training a machine learning model, you need to tell the model what it's trying to predict or detect.

If you are detecting something in images, we have built-in tools to visually label the data.

The correctness of the labels is critical to training an accurate model.

7: You're Now Ready to Train Your Model

After you have a large dataset paired with data labels, you can start to navigate the steps of training a machine learning model.

LifeOmic provides a machine learning pipeline that makes it easy to train your model on data in our system. You provide your training algorithm as a Docker image and we manage the training of your model as well as recording the performance.

8: Run Your Model When Necessary Performance is Reached

When your trained model has reached the level of performance you need, you can start to run your model on new data as it arrives to make inferences about the data.

The output of your model can be stored with the patient data and used how you'd like - shown to users or used as input into other parts of the system.

9: Constantly Improve Your Machine Learning Model

As new data arrives and predictions are made, you should spend time to review the results. That allows you to make sure your algorithm continues to perform well.

When reviewing, you should save your evaluations as new data labels. After enough new labels are added you can retrain your model, put it into production and start the cycle over again.

About LifeOmic

Our cutting-edge technology helps power precision health for more than 5 million people. Our mission is to equip providers, researchers, and health-focused enterprises in their pursuit of precision health care. The LifeOmic Platform forms the technology backbone for managing complex health data and building transformative products.

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Let LifeOmic help build your machine learning model for your medical device.

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