Powering the Medical AI Revolution

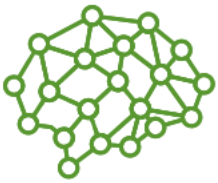
We are on a Mission to Improve Healthcare with AI

The medical field, where accurate and timely decisions can mean the difference between life and death, is set to be revolutionized by the emerging Artificial Intelligence (AI) revolution – Hacarus is at the forefront of this movement.

Since its inception in 2014 Hacarus has been focused on building solutions that help the medical field provide better, faster and safer treatment, based on data driven AI insights.

Benefits of Hacarus AI

Hacarus AI understands patient data the way doctors and medical professionals do – by identifying the key symptoms and features of a condition. This human centric approach delivers a series of advantages:



AI made from Human Experts and Sensor generated Data

Our Technology is built from digitizing specialist expertise to create predictive models – all insights are therefore understandable by doctors and physicians.

Applicable Even to Rare Conditions

Unlike competing solutions that require data samples in the tens of thousands, Hacarus can create reliable models with as little as fifty samples. This means Hacarus can provide predictions even for rare conditions, where the available data set is small.

Faster & More Energy Efficient

Thanks to its lightweight design, Hacarus technology is up to 5 times faster to deploy and uses only 1% of the energy required by competing techniques.

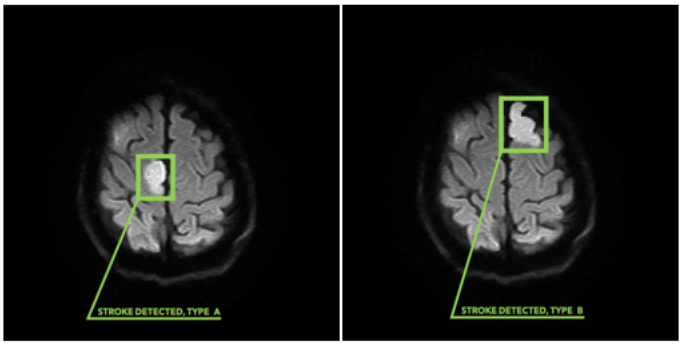
Integrates with deployed equipment

Hacarus technology can run on the Cloud or on the Edge, supporting various types of equipment, allowing for easy integration regardless of deployment environment. Our capabilities span across Software into the Hardware domain.

Real World Case Studies

After 4 years of R&D Hacarus began pre-commercial roll out of its AI solutions for the medical field in 2018 Q1. Hacarus technology is currently being evaluated both in Japan and Germany for applications such as aiding in medical trials, preemptive treatment and medical diagnostics.

Brain Stroke Diagnostics – Scaling Specialist Knowledge and Saving Lives



A stroke occurs when the blood supply to part of the brain is interrupted or reduced, depriving brain tissue of oxygen and nutrients. Within minutes, brain cells begin to die. Prompt treatment is crucial. Early action can minimize brain damage and potential complications. Stroke is a massive health problem.

In the United States alone:
- Stroke kills about 140,000 Americans each year—that's 1 out of every 20 deaths.
- Someone in the United States has a stroke every 40 seconds. Every 4 minutes, someone dies of stroke.
- Stroke costs the United States an estimated $34 billion each year.

The problem is, the expertise to determine the appropriate treatment is a scarce resource, and specialists are hard to come by. There are several types of strokes, some with treatments that are directly contradictory to each other. Mis-diagnostics, a very real risk, can lead to death.

This is where Hacarus can help, using its novel AI technology. Working together with a leading Medical University in Japan and a partner in the medical industry Hacarus is currently building an AI engine capable of aiding doctors in diagnostics. By combining data from MRI and other vital patient data, our model is able to accurately aid doctors in selecting the appropriate treatment within seconds.

Detecting Fractures using Bone Position Analysis

Bone fractures, a common occurrence in ERs around the world can be caused by anything from accidents to diseases, such as osteoporosis. The conventional method for diagnosis is time consuming and prone to human errors – directly dependant on X-ray image quality and ability of practitioners to interpret results.

Using Hacarus technology there's a better, faster and safer way to diagnose bone fractures and make sure patients get the right treatment.

By utilizing Hacarus sparse modeling based technology we are able to de-noise the X-ray by removing non-essential features, such as fat tissue or skin. With the key features defined we are then able to graph the characteristics of a healthy bone.

This result is then compared with X-rays of bone fractures to determine where and how the fracture has occurred. The automated nature of the approach significantly reduces the time needed to decide appropriate treatment.