

## SPEEDO

### Time-critical software development for swim tracking

#### THE CHALLENGE >

Leading international swimwear brand Speedo had a tight timescale for the creation of a swim tracking algorithm for its new generation of tracking app – called Speedo On.

The first stage of work needed to be done in time for it to be pre-installed on Samsung's Gear Fit2 Pro activity tracker.

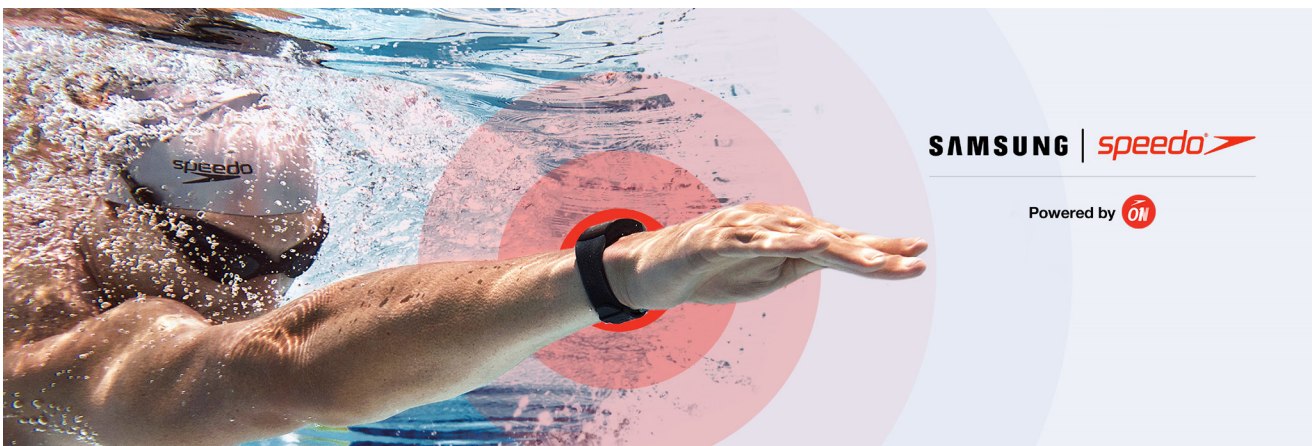
One of the key challenges was understanding from the data which stroke was being used, taking into account wide variations in swim technique. Lap counting was also complex – using only measurements of hand movements, the app needed to differentiate between normal swimming and the movements during a turn.

#### THE SOLUTION >

As part of a worldwide team that worked around the clock, CDP deployed a mixture of analysis techniques – using both classical and machine learning algorithms to identify the relevant swimming characteristics.

Sophisticated algorithms translate data from the accelerometer and gyroscope in the ergonomic wrist-worn device into measurements of lap count, lap time, stroke type and stroke count.

The data is seamlessly transferred on to the Speedo On web-based platform, which acts as a comprehensive training partner – offering analysis of swims and tracking progress against fitness goals.



**“The combination of CDP’s unique software skills and Speedo’s swim expertise has provided fitness-focused swimmers with a completely new level of tracking.”**

Tim Sharpe, innovation director, Speedo owner Pentland

#### BENEFIT TO CLIENT >

The first stage of the development was completed in time for launch – with the Speedo On swim tracking app pre-installed on the Gear Fit2 Pro. It includes training programmes, tips and tailored advice developed by some of the world’s best coaches and athletes.

The app also has a social dimension – enabling users to follow other swimmers, take part in challenges and share achievements. And swimmers can complete time trials and get their SWOLF score – a swim efficiency measure.

Work is continuing on the next generation of the technology to ensure Speedo maintains its market-leading position.

