# jumpstart

# R&D TAX CREDITS.
## Turn software development challenges into financial help

Case studies of software development challenges that qualify for R&D tax relief.

## £100 million

The amount of tax relief that Jumpstart has recovered for its clients so far.

Did you know that any company that is striving to take its products and methods above and beyond existing technology could be (probably is!) doing R&D? Which means it may be eligible for R&D tax relief.

SOME COMPANIES FAIL TO CLAIM ALL THAT THEY ARE DUE, AND SOME ARE NOT CLAIMING AT ALL DESPITE CARRYING OUT SIGNIFICANT AND ELIGIBLE WORK.

In software development the buzz this year is all about AI:

- The UK government has recently announced **an AI Sector Deal**
- The EU is throwing its weight behind **a similar initiative**

Behind the noise generated by these big players beating big drums, we at Jumpstart have been working away quietly with clients already developing AI systems.

### The challenge of ... reading speed signs

Have you ever had a speeding ticket cruising through motorway works at 70mph when the posted, temporary, speed limit is 40mph? Did your satnav or smartphone fail to tell you? It may know where the fixed speed limits are, and it may know where the speed cameras are, but how does it know where there is a temporary speed limit that popped up yesterday?

One of our clients developed software to read speed signs at the roadside. Install the app on your smartphone, mount it on your dashboard with a view of the road ahead, and it will alert you to all the speed signs it sees as you drive, including the ones that weren't there yesterday and might not be there tomorrow.

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> *Having previously claimed ourselves, we understood how laborious the task could become. It really took considerable effort and we found it time consuming to gather the claim information year after year.*
>
> *Thanks to their specialist practice, our claim size was significantly increased. We look forward to continuing working with them in the future!*
>
> | LAWRENCE ROSS
> | SVP OPERATIONS
> | PRISMTECH

This clever capability is based on a neural network, a kind of software system that essentially learns to recognise speed signs rather as you might have done. Show the system enough speed signs, speed signs snapped at an angle as you drive past, speed signs seen through a wet windscreen, at night, in bright sunshine or in deep winter gloom. At first the neural network recognises nothing but as the training session continues its performance gets better and better until it's outperforming you.

This type of machine learning system has really only become possible in recent years with advances in the collection of data (it takes a lot of pictures of speed signs to train the software) and in the capabilities of smartphones (it takes a lot of computational oomph to run the trained system as you drive merrily along).

But this is a fast-moving (and we don't mean doing 80mph on the motorway) sector and our clients have not stopped improving their software's image recognition capabilities. Speed signs are a done deal, now they're tackling the kind of image recognition needed by much smarter cars, spotting cyclists wobbling along the city streets in front of you, keeping an eye on the lane markings to alert you when you start to drift, and looking for the right exit to take at the junction ahead.

## The challenge of … talking machines.

Amazon's Alexa and Google's Home Assistant are almost old-hat now, and we haven't been involved in making R&D claims for either of those projects! However, we have been making claims for customers who are experimenting with ways to put these new talkative computers to use.

One was asked by one of the UK's major banks to design a system for telephone banking customers. Customers would be able to talk to the system to do most of their straightforward banking, setting up direct debits, making transfers to other accounts, checking balances, and so on. But the requirement was to go beyond simple requests such as 'Please transfer £100 to my husband's personal account' to answering questions such as 'What's my financial position at the end of the month?'

It's all very well having Alexa and the software development kit but that was just where the fun began. Trying to develop Alexa's skills to deal with the almost infinite variety of ways that the test users came up with for talking to the software proved an almighty challenge, especially so in a domain where customers are likely to

> *We've been consistently impressed by the technical knowledge of our assigned Jumpstart consultant. He knew exactly how to pick our brains to extract the appropriate information and uncover maximum eligibility from our projects.*
>
> | ANDREW HARRISON
> | FINANCE DIRECTOR
> | OPTIX SOFTWARE

be unforgiving of mistakes.  You might laugh if Alexa booked you table for eight people at four o'clock, but not if Alexa paid eighty pounds when you clearly said eighteen.  Designing the flows of conversations has proven extremely complex, and our clients are still working on this.

Other clients too are looking at voice-control and extending existing software systems and games to respond to spoken commands.

## The challenge of … sifting through the terabytes

Computers are ubiquitous and they're all beginning to talk to each other, even when there's no one attached.  Your printer orders ink when it runs low, your car alerts the manufacturer when it starts to misbehave, your wristband tells anyone who hacks the right sites when you go for your morning run so that the local criminals know when to break in …
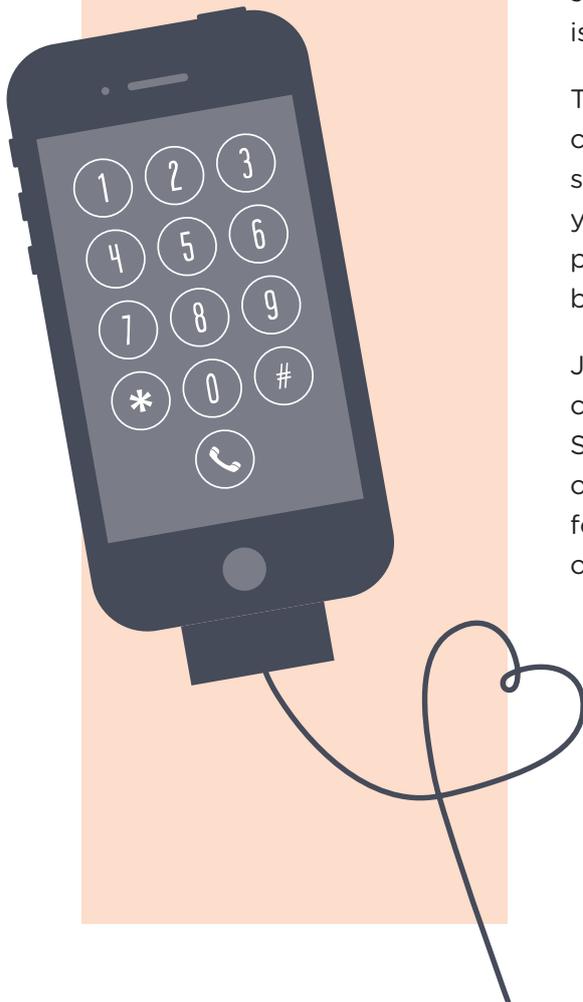
… errr … hold on a minute, that can't be right.  Well, yes it can be and has been.  There is an ongoing war in cyberspace as players battle to protect, or to expose, rich seams of personal and business data.  And in this domain we're already working with clients applying AI to cyberdefence (we don't work for the bad guys).  Large companies constantly monitor incoming and outgoing traffic across their networks, and the internal traffic too.  Somewhere in those data streams is evidence of attempts to hack their systems.

Until recently the cyberdefenders would run analyses of the logs, looking for patterns of behaviour that were suspicious.  Meanwhile the cyberattackers are seeking new attack vectors which do not have the signature of those they've tried previously.

Now our clients are applying AI techniques for pattern recognition not only to look for the signatures of known attacks, but to look for new types of attack. These approaches are akin to a natural immune system capable of identifying and responding to threats it has never encountered before, capable too of rapidly identifying and defeating threats it has encountered before. These systems rely on processing very large volumes of data at very high speed to be able to respond in real-time to emerging threats.

# £585 million

The amount of R&D expenditure that Jumpstart has identified for its clients so far.

## An overview of the scheme

You may be surprised by the R&D that we, at Jumpstart, have already uncovered for software & IT clients – meaning a nice little helping hand in the form of R&D tax relief. If you are developing products, revamping your processes or designing new services in order to advance the technology of what you do, then you could be eligible for R&D tax relief and entitled to lowered corporation tax or in some cases as a payable cash credit.

## About Jumpstart

We think that businesses like yours, who thrive on innovation and doing things differently, are in a perfect position to claim significant R&D tax relief, but so many do not use a partner that gets them the best possible return. If you needed surgery you would go to a surgeon not your GP, and the concept of knowledge and experience is the same when it comes to a fully successful R&D claim.

The ideal partnership to deliver the best results for any client is the combination of a specialist technical R&D tax relief advisory firm such as Jumpstart, who speaks both your language and HMRC's; and your accountant. In collaboration they can manage the assessment, preparation and submission on your behalf, ensuring you receive the biggest return for the least possible effort.

Jumpstart has a proven track record in maximising R&D tax relief claims, whilst also minimising the risk associated with these claims. Since inception 10 years ago, we have identified and documented over £585 million of eligible spend and realised £100 million benefit for our clients. Don't miss out on what you're entitled to. Regardless of your current claiming status, Jumpstart can help.

## Remember!

EVEN IF YOU HAVE ALREADY MADE A CLAIM YOU MAY STILL BE ABLE TO REVIEW YOUR CLAIM AND INCREASE THE VALUE OF YOUR RELIEF.

There is no substitute for experience and expertise. Experience gained through years of daily involvement in putting together thousands of successful R&D tax claims. Expertise built through a detailed programme of training and study, maintained and regularly enhanced.

**JUMPSTART YOUR R&D TAX CLAIM TODAY.**