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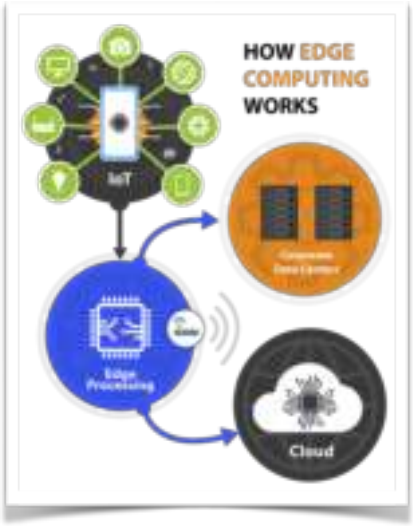
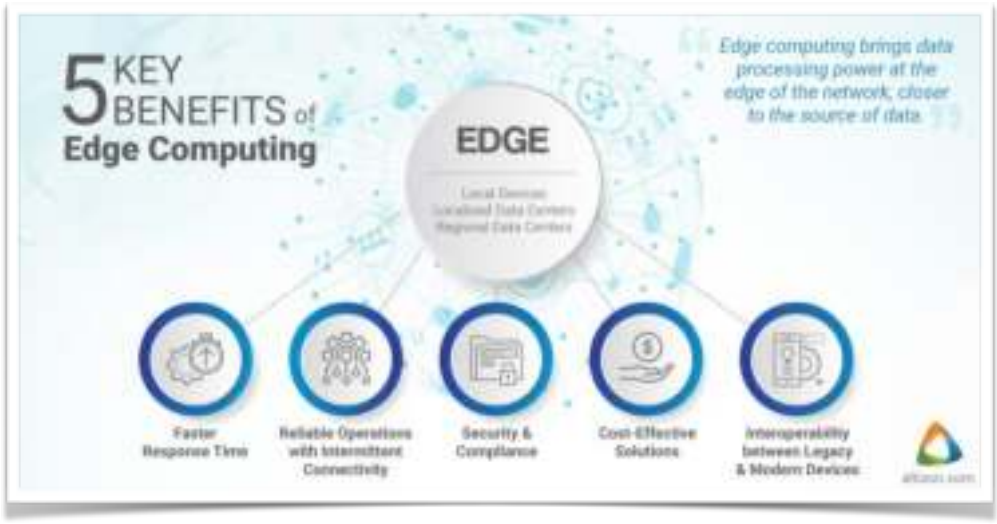
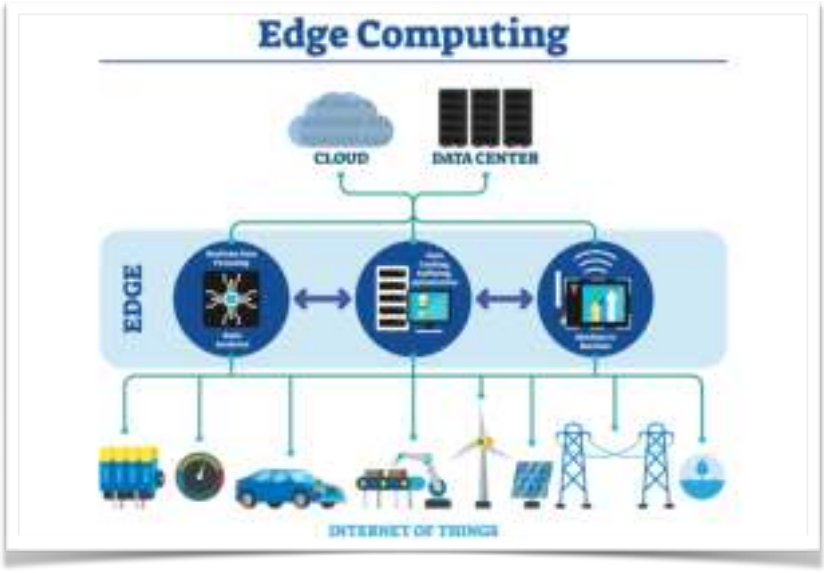






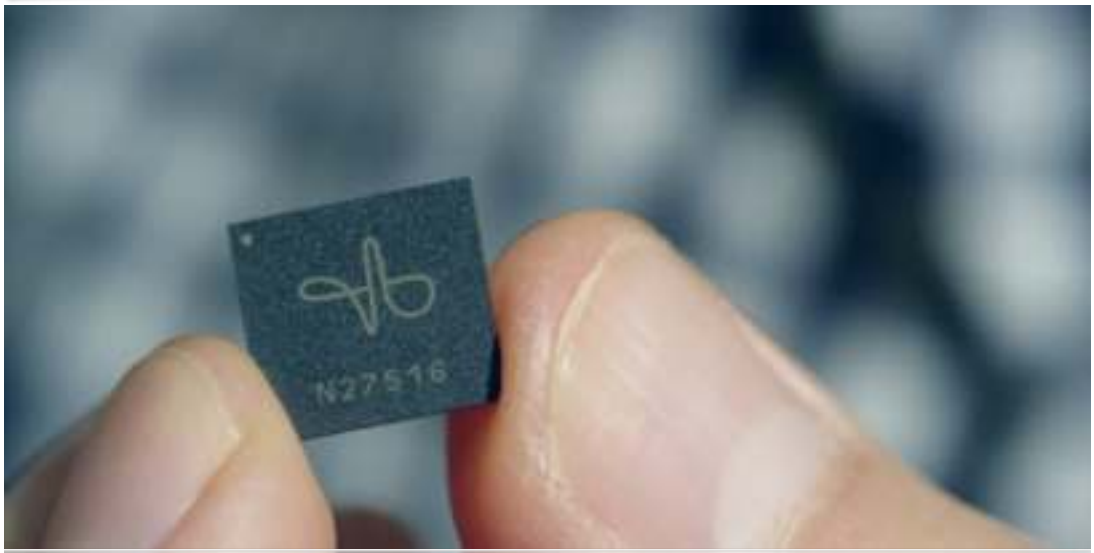
Edge Computing

Formerly a technology trend to watch, cloud computing has become mainstream, with major players AWS (Amazon Web Services), Microsoft Azure and Google Cloud dominating the market. The adoption of cloud computing is still growing, as more and more businesses migrate to a cloud solution. But it's no longer the emerging technology. Edge is. Move over, cloud computing, and make way for the edge.

As the quantity of data we're dealing with continues to increase, we've realised the shortcomings of cloud computing in some situations. Edge computing is designed to help solve some of those problems as a way to bypass the latency caused by cloud computing and getting data to a data centre for processing. It can exist "on the edge," if you will, closer to where computing needs to happen. For this reason, edge computing can be used to process time-sensitive data in remote locations with limited or no connectivity to a centralised location. In those situations, edge computing can act like mini data centres. Edge computing will increase as use the Internet of Things (IoT) devices increases. By 2022, the global edge computing market is expected to reach $6.72 billion.

As with any growing market, this will create job demand, primarily for software engineers.

Read more about edge computing vs. cloud computing.



GOOGLE SOLI

By Google ATAP

Google's Soli is a purpose-built chip to track your motion on a microscopic scale. It uses miniature radar for real-time motion tracking of the human hand; it's able to track sub-millimetre motion at high speeds with great accuracy.

The Soli chip measures just 8mm x 10mm and it incorporates the sensor and antenna array into a single device, meaning it can be used in even the smallest wearables. It has no moving parts, consumes very little energy, isn't affected by light conditions and works through most materials making it a pretty exciting bit of technology.

In tandem with the chip, Google ATAP is developing a language for interacting with devices using gestures. Devices equipped Soli chip can then use a universal set of gestures. Google calls these Virtual Tool Gestures and they involve things like pressing an invisible button between your thumb and index finger or turning a dial by rubbing your thumb and index finger together.

The idea is that these gestures feel physical and responsive thanks to the feedback from fingers touching each other, even though the gesture itself is virtual.

The 5G switch made easy

By 2024, volumes of mobile data traffic are expected to increase by a factor of 5, and 25 percent of that traffic will be carried by 5G networks. Communication service providers now face three main challenges.

First: how to build the capacity required in a dynamic and flexible way.

Second: how best to address operational inefficiencies by leveraging automation and AI.

Third: how to increase the revenue growth by means of service differentiation and the ability to leverage their partners' ecosystems.
With Ericsson's help, they will be all set to tackle these challenges.

Ericsson has played a pivotal role in the advancement of 5G technology. Together with our partners, we have led an ecosystem of expertise from the early stage of network trials to making this technology a commercial reality. As a result, our 5G leadership position is evident in several critical areas:
1.We are driving the most significant 5G standardization work, and applying a rapidly increasing number of new standards to our portfolio.
2.We have successfully completed comprehensive interoperability testing, across all main spectrum bands.
3.We provide a smooth evolution path, enabled by the Ericsson 5G platform and the 4 million 5G ready radios we have shipped.

Virtual Reality and Augmented Reality

Virtual Reality (VR) immerses the user in an environment while Augment Reality (AR) enhances their environment. Although VR has primarily been used for gaming thus far, it has also been used for training, as with VirtualShip, a simulation software used to train U.S. Navy, Army and Coast Guard ship captains. The popular Pokemon Go is an example of AR.

Both have enormous potential in training, entertainment, education, marketing, and even rehabilitation after an injury. Either could be used to train doctors to do surgery, offer museum-goers a deeper experience, enhance theme parks, or even enhance marketing, as with this Pepsi Max bus shelter.

According to an article at Monster.com, the demand for job candidates with VR knowledge is up 37 percent, but the potential employees are in short supply. That demand will only increase. There are major players in the VR market, like Google, Samsung, and Oculus, but plenty of startups are forming and they will be hiring—or trying to, in light of the shortage. Getting started in VR doesn't require a lot of specialized knowledge.

Basic programming skills and a forward-thinking mindset can land a job, although other employers will be looking for optics as a skill-set and hardware engineers as well.

BLOCKCHAIN

Although most people think of blockchain technology in relation to cryptocurrencies such as Bitcoin, blockchain offers security that is useful in many other ways. In the simplest of terms, blockchain can be described as data you can only add to, not take away from or change. Hence the term “chain” because you’re making a chain of data. Not being able to change the previous blocks is what makes it so secure. In addition, blockchains are consensus-driven, as explained in this Forbes article, so no one entity can take control of the data. With blockchain, you don’t need a trusted third-party to oversee or validate transactions.

This heightened security is why blockchain is used for cryptocurrency, and why it can play a significant role in protecting information such as personal medical data. Blockchain could be used to drastically improve the global supply chain, as described here, as well as protect assets such as art and real estate.

And as the use of blockchain technology increases, so too does the demand for skilled professionals. In that regard, we are already behind. According to Techcrunch, blockchain-related jobs are the second-fastest growing category of jobs, with 14 job openings for every one blockchain developer. A blockchain developer specializes in developing and implementing architecture and solutions using blockchain technology. The average yearly salary of a blockchain developer is $130,000.

The job of a developer is not the only one available in the blockchain space, however. Employers are also looking for software engineers, consultants and project managers. Jobs are available at financial institutions, but also in retail and healthcare, and soon probably manufacturing as well.

TERMINATOR

JUDGEMENT DAY

SOPHIA

Sophia is a social humanoid robot developed by Hong Kong based company Hanson Robotics.

ARTIFICIAL INTELLIGENCE

Artificial Intelligence, or AI, has already received a lot of buzz in recent years, but it continues to be a trend to watch because its effects on how we live, work and play are only in the early stages. In addition, other branches of AI have developed, including Machine Learning, which we will go into below. AI refers to computers systems built to mimic human intelligence and perform tasks such as recognition of images, speech or patterns, and decision making. AI can do these tasks faster and more accurately than humans.

AI has been around since 1956 is already widely used. In fact, five out of six Americans use AI services in one form or another every day, including navigation apps, streaming services, smartphone personal assistants, ride-sharing apps, home personal assistants, and smart home devices. In addition to consumer use, AI is used to schedule trains, assess business risk, predict maintenance, and improve energy efficiency, among many other money-saving tasks.

> "AI is likely to be either the best or worst thing to happen to humanity"
>
> STEPHEN HAWKING

AI is one part of what we refer to broadly as automation, and automation is a hot topic because of potential job loss. Experts say automation will eliminate 73 million more jobs by 2030. However, automation is creating jobs as well as eliminating them, especially in the field of AI: Pundits predict that jobs in AI will number 23 million by 2020. Jobs will be created in development, programming, testing, support, and maintenance, to name a few. Artificial Intelligence architect is one such job. Some say it will soon rival data scientist in need for skilled professionals.

To learn more about potential jobs in AI, read about building a career in AI or why you should earn an AI certification.

SOPHIA

Sophia is a social humanoid robot developed by Hong Kong based company Hanson Robotics. Sophia was activated on February 14, 2016, and made its first public appearance at South by Southwest Festival in mid-March 2016 in Austin, Texas, United States. It is able to display more than 50 facial expressions.

MICROSOFT LAUNCHES ITS AI PRESENTATION COACH FOR POWERPOINT

Google AI

Google AI, formerly known as **Google** Research, is **Google's artificial intelligence (AI)** research and development branch for its **AI** applications. **Google** unveiled its rebrand of **Google AI** at **Google** I/O 2018. ... **DeepMind** – a division responsible for developing deep learning and artificial general intelligence (AGI) technology.