

12

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

Cosa sono gli oracoli *blockchain*?

INTELLIGENZA ARTIFICIALE

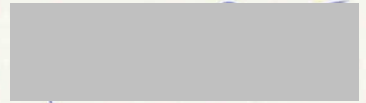
Quali sono le principali fasi nello sviluppo di un sistema di apprendimento automatico?

DATA SCIENCE

Cosa è il *word embedding* in ambito Natural Language Processing (NLP)?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Il candidato illustri brevemente i contenuti del *Disaster Recovery Plan*.



A B

12. Unlocking the value of artificial intelligence and machine learning

Artificial intelligence and machine learning have reached enterprise maturity – no longer just flashy add-ons, they are essential components in information architecture. Businesses across all industries can harness these technologies, but, as Hexaware's Vaidya JR points out, they must have a clear picture of their strategic and business goals before implementation.

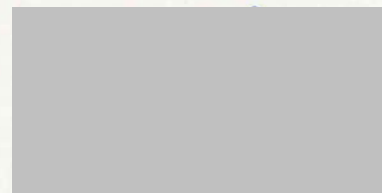
In an era of accelerated digitalisation, artificial intelligence (AI) and machine learning (ML) have fast become part of the IT infrastructure of many businesses. Consequently, how these technologies are being used to derive meaningful insights from vast quantities of data is maturing rapidly.

“Early on, when organisations didn't have access to the computing power and zettabytes of data that they have today, AI was only springing up in pockets,” says Vaidya JR, SVP and global head of data and AI at IT transformation specialist Hexaware Technologies, “The approach then was to see what AI could do for a company, without truly identifying a well-defined problem. Data science solutions were just a shot in the dark.

“Organisations were struggling to put their data to effective use, which led to limited value generated and ineffectual business results,” he adds. “You can crunch any amount of data, and create numerous models; it only adds value if there is a significant impact on the business. But the current attitude has completely changed across industries, without exception.”

From being data-rich but insight-poor, businesses are putting vast amounts of data to work – sensor data, satellite imagery, web traffic, digital apps, video images, and much more. They are in the process of automating and democratising AI and ML, but the attitude now is one of identifying business problems to solve before implementing these technologies. This marks a significant shift: AI and ML strategies are no longer driven by tech, but by strategic business objectives.

“Enterprises are looking for use cases to drive business goals and produce results,” observes Vaidya.



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17

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

Cosa si intende con DeFi?

INTELLIGENZA ARTIFICIALE

Quali approcci nell'ambito del *Natural Language Processing* (NLP) possono essere applicati per classificare documenti non strutturati?

DATA SCIENCE

Cosa si intende per *data integration* e quali approcci vengono usati in tale ambito?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

***Vulnerability Assessment*: definizione, strumenti e tecniche di esecuzione, differenze con il *penetration test*.**



A
PB

17. Cybersecurity on the board: How the CISO role is evolving for a new era

One morning in 2015, Joseph Carson began his presentation to a company's board of directors about why its cybersecurity division deserved a budget increase. The firm, explained Carson, was uniquely vulnerable to the dangers of ransomware and supply chain attacks. If this project didn't get the funding it needed, the company's data would be at risk of multiple breaches, he said, inviting the kind of public and legal scrutiny that would see its stock plunging and his audience out of a job.

The board seemed suitably frightened. "The CEO and CFO came to me and thanked me afterwards," recalls Carson. Then they denied the budget application. "That's when I realised that we need to start changing."

Seven years on, and it's harder to imagine this same scene occurring in any boardroom. Cyberattacks are commonplace for large organisations, and board directors now view cybersecurity as the second-highest source of risk, behind regulatory compliance, according to a survey by analyst company Gartner.

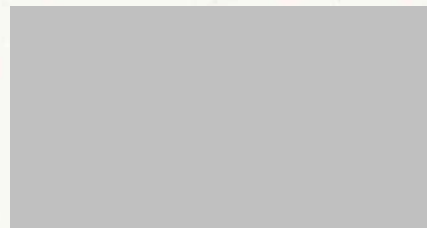
Still, cybersecurity expertise is lacking on most company boards. Just 12% of chief information security officers (CISOs) surveyed by executive search firm Heidrick & Struggles last year have a seat on their corporate boards.

That could be about to change. In March, the US Securities and Exchange Commission (SEC) released a proposal that, if approved, will make oversight of corporate cybersecurity a legal responsibility of the executive board. In the UK, meanwhile, the government has made clear its plans to require listed companies to publish a 'resilience statement' with specific information on cybersecurity risks.

This growing awareness of cybersecurity risk means that 40% of boards of directors will have "a dedicated cybersecurity committee overseen by a qualified board member" by 2025, Gartner has predicted, up from less than 10% in 2020. CISOs with a seat on the corporate board could soon be a more common occurrence.

Questions remain, however, about how this will succeed in practice. Cybersecurity, after all, is a deeply technical discipline, and one that many find difficult to master. But having a CISO on the board isn't just about teaching corporate officers a thing or two about basic security hygiene, explains Carson, now chief security scientist and advisory CISO at Privileged Access Management (PAM) specialist Delinea.

Rather, it's about triggering a top-down cultural shift in the business toward adaptive cybersecurity. Increasingly, says Carson, "my job is [about] business resiliency - and cybersecurity is my skill set."



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5

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

Quali sono le caratteristiche fondamentali di una funzione di *hash* e in che modo queste possono essere impiegate in una piattaforma *blockchain*?

INTELLIGENZA ARTIFICIALE

Quali possono essere alcune delle principali tecniche di applicazione dei modelli supervisionati relativi agli algoritmi di intelligenza artificiale?

DATA SCIENCE

Quali sono le fasi del ciclo di vita nell'analisi di *big data*?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Cosa si intende per *Risk Assessment*?



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5. IRS crime-fighting arm takes on new tasks during Ukraine war

The crime-fighting arm of the IRS, which tracks financial crimes and hunts down pricey properties of sanctioned Russian elites, identified more than \$32 billion in funds during the past fiscal year for eventual seizure, the agency reported last Thursday.

Jim Lee, chief of IRS Criminal Investigation, said that's a "huge" amount — three times what was identified in the previous year. And the amount of money seized in stolen cryptocurrency — more than \$7 billion — doubled from the previous year, he said.

The division's annual report sheds light on how it has added new responsibilities — like investigating sanctioned Russian oligarchs — to its priorities as Russia wages war on Ukraine. It has opened 20 investigations of sanctioned people since it joined the Justice Department-led task force Kleptocapture in March. The task force targets Russian oligarchs and others who evade sanctions.

"As a division," Lee said, "we are nimble and able to shift quickly." The division has come under increased scrutiny in recent months, particularly when Congress was debating the Inflation Reduction Act, which gives the IRS \$80 billion in additional funding.

"Much of the international success of CI special agents stems from a robust and aggressive international program that includes 11 foreign posts and memberships in multiple international taskforces," the annual report states. Agents work alongside the Drug Enforcement Administration, the Joint Criminal Opioid Dark-net Enforcement taskforce as well as other entities.

Among seizures this past year, the agency assisted in the investigation that led to the February arrest of Ilya Lichtenstein and Heather Morgan for an alleged conspiracy to launder cryptocurrency that was stolen during the 2016 hack of virtual currency exchange Bitfinex, valued at approximately \$4.5 billion, the largest single financial seizure in government history.

And in August, Alexander Vinnik, a Russian citizen and an alleged operator of the illicit cryptocurrency exchange BTC-e, was charged in California with operating a cybercrime and online money laundering firm, alleged to have laundered more than \$4 billion.



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11

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

Che relazione c'è tra DApp e *smart contract*?

INTELLIGENZA ARTIFICIALE

Nell'ambito dei problemi di ricerca, quali sono le principali tecniche di ricerca locale?

DATA SCIENCE

Cosa è un modello di linguaggio e quali sono le differenze tra un modello a borsa di parole (*bag-of-words*) e un modello a n-grammi?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Cosa prevedono principalmente i *Disaster Recovery Plan* e *Business Continuity Plan*?



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11. UK government announces £6m cybersecurity support for Ukraine

The UK government is boosting Ukraine's cyber defences, with a £6.35m package aimed at helping it withstand an onslaught of cyberattacks from hackers assumed to be sympathetic to Russia. The programme will see leading cybersecurity vendors offer advice on how to protect Ukraine's national infrastructure against cyberattacks.

The UK's Ukraine cyber programme was initially mobilised following Russia's invasion in February, but details of the £6.35m in funding were only revealed today. It is designed to help implement advanced cybersecurity measures, along with partnerships with vendors to optimise the country's existing protection against attacks.

Alongside this, the UK government is providing incident response for the attacks that do occur and has delivered front-line cybersecurity hardware and software. This includes firewalls to prevent attacks from taking hold, protection against distributed denial of service (DDoS) attacks, which have been commonly deployed during the war, and "forensic capabilities" to help Ukrainians on the ground untangle complex attacks.

The programme was initially kept secret to "protect its operational security," the Foreign Office said. The scheme works by "using the expertise of world-leading cybersecurity providers".

Following Russia's invasion, cyberattacks on Ukraine have increased significantly. Many of these have been DDoS attacks on elements of Ukraine's critical national infrastructure. One attack was particularly serious, hitting the Viasat satellite network and limiting internet access for many Ukrainians. Other attacks have damaged Ukrainian military, government and banking websites, as well as disrupting humanitarian aid efforts.

Foreign secretary James Cleverly said the UK's support is strengthening Ukraine's cyber defences and improving collective long-term cyber resilience and not only limited to military aid.



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1

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

In cosa consiste il meccanismo di consenso *Proof-of-Stake* (PoS) e in cosa differisce da *Proof-of-Work* (PoW)? Quale dei due meccanismi è meno energivoro e perché?

INTELLIGENZA ARTIFICIALE

Nell'ambito di un progetto di intelligenza artificiale, quali possono essere le fasi di un generale processo di classificazione e di predizione?

DATA SCIENCE

Cosa è un *data lake*? Quali vantaggi presenta e come si differenzia rispetto ad altri sistemi di *data management*, come i *data warehouse*?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Cosa si intende per "Perimetro di sicurezza cibernetica nazionale"?



ay fb

1. Australia blames Russians for health insurance data theft

Moscow must be held accountable for Russian cybercriminals accused of hacking Australia's largest health insurer and dumping customers' personal medical records on the dark web, Australian officials said last week.

Australian Federal Police took the unusual step of attributing blame for the unsolved cybercrime that resulted in the personal data of 9.7 million current and former Medibank customers being stolen.

A group of "loosely affiliated cybercriminals" operating like a business in Russia were likely responsible for the Medibank attack as well as other significant security breaches around the world, Australian Federal Police Commissioner Reece Kershaw said.

"We believe we know which individuals are responsible, but I will not be naming them," Kershaw told reporters. "What I will say is that we'll be holding talks with Russian law enforcement about these individuals."

Prime Minister Anthony Albanese, who is a Medibank customer who had personal data stolen, said he had authorized police to reveal where the attack had come from. "We know where they're coming from, we know who is responsible, and we say that they should be held to account," Albanese said. "The nation where these attacks are coming from should also be held accountable for the disgusting attacks, and the release of information including very private and personal information," Albanese added.

An official from the Russian Embassy in Australia could not be immediately contacted for comment. The extortionists have been linked to high-profile Russian cybercrime gang REvil, short for Ransomware Evil and also known as Sodinokibi. The Russian Federal Security Service said in January REvil "ceased to exist" after several arrests were made at the insistence of the United States.



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19

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

**Cosa si intende con web3? Quali sono le differenze principali rispetto al web2?
Come la *blockchain* interviene nel web3?**

INTELLIGENZA ARTIFICIALE

Cosa sono gli algoritmi evolutivi e quali vantaggi e svantaggi presentano rispetto ad algoritmi di ottimizzazione classici?

DATA SCIENCE

Cosa si intende per *data governance* (o *governance* dei dati) e quali sfide pone la *governance* dei dati nel *cloud*?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Cos'è il modello di sicurezza NIST?



af BB

19. Google will pay \$392m to 40 states in largest ever US privacy settlement

Google has agreed to a \$391.5m settlement with 40 states to resolve an investigation into how the company tracked users' locations, state attorneys general announced last Monday.

The states' investigation was sparked by a 2018 Associated Press story, which found that Google continued to track people's location data even after they opted out of such tracking by disabling a feature the company called "location history". The attorneys general called the settlement a historic win for consumers, and the largest multi-state settlement in US history dealing with privacy.

It comes at a time of mounting unease over privacy and surveillance by tech companies that has drawn growing outrage from politicians and scrutiny by regulators. The supreme court's ruling in June ending the constitutional protections for abortion raised potential privacy concerns for women seeking the procedure or related information online.

"This \$391.5m settlement is a historic win for consumers in an era of increasing reliance on technology," said Connecticut attorney general William Tong in a statement. "Location data is among the most sensitive and valuable personal information Google collects, and there are so many reasons why a consumer may opt-out of tracking."

Google, based in Mountain View, California, said it fixed the problems several years ago. "Consistent with improvements we've made in recent years, we have settled this investigation, which was based on outdated product policies that we changed years ago," said company spokesperson Jose Castaneda in a statement.

Location tracking can help tech companies sell digital ads to marketers looking to connect with consumers within their vicinity. It is another tool in a data-gathering toolkit that generates more than \$200bn in annual ad revenue for Google, accounting for most of the profits pouring into the funds of its corporate parent, Alphabet, which has a market value of \$1.2tn.

In its 2018 story, the AP reported that many Google services on Android devices and iPhones stored users' location data even if they had used a privacy setting that says it will prevent Google from doing so. Computer-science researchers at Princeton confirmed these findings at the AP's request.

Storing such data carries privacy risks and has been used by police to determine the location of suspects. The AP reported that the privacy issue with location tracking affected about 2 billion users of devices that run Google's Android operating software and hundreds of millions of worldwide iPhone users who rely on Google for maps or search.



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16

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

Qual è la differenza tra *security token* e *utility token*?

INTELLIGENZA ARTIFICIALE

Cosa sono i recenti *foundation model* e in quali campi applicativi possono essere usati?

DATA SCIENCE

Quali sono i principali modelli di dati usati nei sistemi NoSQL?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Come sono individuati gli operatori dei servizi essenziali (OSE) individuati dalla direttiva NIS?

A BB

16. Amazon eyes move into UK insurance market with price comparison site

Amazon is launching a price comparison portal, Amazon Insurance Store, for UK customers to find home insurance policies. The move has been widely anticipated for some time and could prove a lucrative one as the tech giant continues to expand its financial services offering.

Amazon Insurance Store will be a UK home insurance comparison platform. It will initially feature policies from just three insurers – General Insurance, Ageas UK and Co-op – but Amazon says more will be added in the coming months.

The model for Amazon Insurance Store is similar to that of other comparison sites, with the tech giant earning commission from each deal. Customers will be able to leave star ratings for insurers.

“This initial launch is only the beginning,” said Jonathan Feifs, general manager of Amazon’s European payment products; who added that the company will “continue to innovate and make refinements” to the store, with the aim of “providing the most convenient shopping experience possible”.

Amazon says all products sold on the platform will have to comply with a standard of cover it is setting. “Finding the right home insurance policy can be a time-consuming and confusing task, with quotes that often leave out essential coverage in order to lead with the lowest price,” Feifs added. “When we set out to create the Amazon Insurance Store, we wanted to improve the experience for customers shopping for home insurance so they could easily compare options and make an informed, objective decision.”

It is the latest move by Amazon to carve out a niche in financial services. It already offers product insurance, and last week launched a high-yield savings account with Goldman Sachs, and is running a ‘buy now, pay later’ project in partnership with Barclays Bank.

The industry has anticipated this move for a number of years now, says Ben Carey-Evans, senior insurance analyst at Global Data. “Amazon has a presence in many households in the UK via Amazon Alexa, where leading insurers such as Aviva and Zurich have launched ‘skills’ to help customers understand insurance.”



7

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

Le informazioni registrate su una blockchain sono immutabili e non manomissibili. Sotto quali ipotesi questa affermazione è corretta? In che modo l'immutabilità viene garantita?

INTELLIGENZA ARTIFICIALE

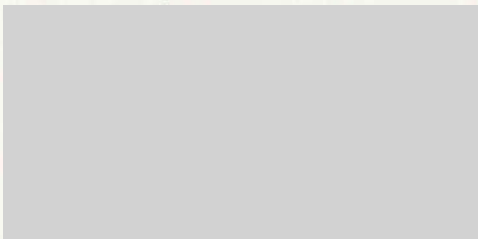
Quali possono essere i legami tra *deep learning* e le reti neurali, anche rispetto al *machine learning*.

DATA SCIENCE

Cosa si intende con *Extract, Transform, Load (ETL)*? Quale è la relazione tra *ETL* e *Machine Learning*?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Il candidato elenchi le fasi previste dalla metodologia "*Information Risk Assessment Methodology, version 2 (IRAMv2)*".



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7. Dutch MEP says illegal spyware ‘a grave threat to democracy’

The senior MEP leading an inquiry into spyware has accused the EU commission of ignoring the “grave threat to democracy” posed by the use of the technology, and national governments of failing to cooperate with her investigation.

The Dutch liberal MEP Sophie in’t Veld said there was illegal use of spyware in Poland, Hungary, Greece and Spain and suspicions about Cyprus, while other EU member states made it easy for the “shady” industry to operate. She accused national governments of failing to cooperate with her investigation, which is run by a European parliament special committee to look into the use of Pegasus – hacking software sold by the Israeli surveillance company NSO Group – and equivalent spyware in the wake of revelations from the Guardian and other media.

Publishing her interim report on Tuesday the MEP accused the European Commission, the body responsible for enforcing EU law, of silence in the face of a threat to democracy.

“The commission is very determined to fight attacks on democracy from the outside,” she said, citing its democracy action plan and response to Elon Musk’s takeover of Twitter. The EU’s internal market commissioner, Thierry Breton, had said on the platform that “in Europe, the bird [Twitter] will fly by our rules”.

The MEP added: “But ... when the threat to democracy is not some far away stranger but the governments of EU member states, the commission suddenly considers that the defence of European democracy is no longer a European matter, but a matter for the member states. The commission shows muscle to Musk, but velvet gloves to member states using spyware on citizens.”

The investigation was based on forensic analysis of phones and a leaked database of 50,000 numbers potentially of interest to clients of NSO, including that of the French president, Emmanuel Macron. The spyware effectively turns people’s phones into surveillance devices without their knowledge, copying messages, harvesting photos and recording calls.

The MEP is calling for a ban on the sale, acquisition and use of spyware inside the EU unless member states can meet strict conditions guaranteeing appropriate use of the technology. Conditions include ensuring there are investigations into alleged misuse of spyware, and having a legal framework in line with European human rights legislation.



21

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

Cosa sono le *stablecoin*? Quali tipologie di *stablecoin* esistono? Quale problema delle criptovalute cercano di risolvere?

INTELLIGENZA ARTIFICIALE

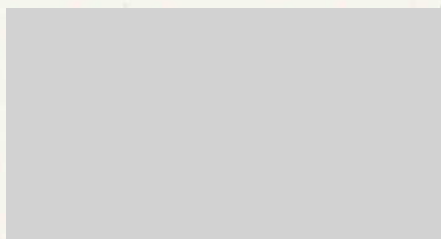
Cosa si intende per l' *intelligenza artificiale spiegabile* (o *Explainable AI*)?

DATA SCIENCE

Quale è lo scopo di un algoritmo di clustering dei dati? Si descriva un algoritmo di clustering dei dati e se ne evidenzino i possibili vantaggi e svantaggi.

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Quali sono le tre principali fasi dell'analisi dei rischi in accordo alla norma ISO 31000?



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21. How Ukraine embraced cryptocurrencies in response to war

It was a plan produced in haste on the second day of the invasion. Ukraine's digital transformation minister Mykhailo Fedorov turned to his deputy, instructing him to set up official government wallets that could accept payments in cryptocurrency.

As queues built up outside cashpoints and supermarkets in Kyiv, Alex Bornyakov knew he had to move fast. "Our banks were limited, there were restrictions on our use of government approved currencies and we were rapidly running out of supplies," he said. "Even if you manage to pay in these currencies, a wire transfer takes a few days to reach the recipient. In the crypto world, it only takes minutes."

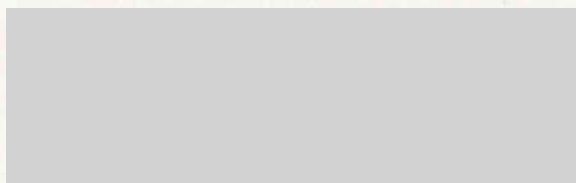
Ukraine had already begun embracing crypto before its war with Russia. The country was ranked fourth for cryptocurrency adoption among its citizens in a global index by Chainalysis Inc., the crypto research group, last year.

But the conflict has acted as a catalyst for the government's ambitions to build an innovative, blockchain-friendly economy, led by a young team of techno-natives in government: Vice Prime Minister Fedorov is 31, Deputy Minister of Digital Transformation Bornyakov is 40, and President Volodymyr Zelensky is 44.

In Ukraine, digital coins have lived up to their reputation for easily moving money across international borders, as sympathizers with the Ukrainian cause have raised the equivalent of more than \$100 million through cryptocurrency donations since the war started. While this is small compared with the billions in aid from western governments and the IMF, Bornyakov said crypto had become an essential tool of war, allowing for flexibility and speed.

However, many governments were complying with the sanctions plan aimed at devastating the Russian economy. The gap between the words and actions of crypto's biggest players illustrates the challenges that the crypto community now faces as a mainstream industry in the midst of a geopolitical crisis — one that now looks like a defining moment for cryptocurrencies such as bitcoin.

But on the Russian side, the supposedly borderless form of money has instead collided with the reality of international sanctions driven by a major European conflict.



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3

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

Quali sono le differenze principali tra una *blockchain public* e *private*?

INTELLIGENZA ARTIFICIALE

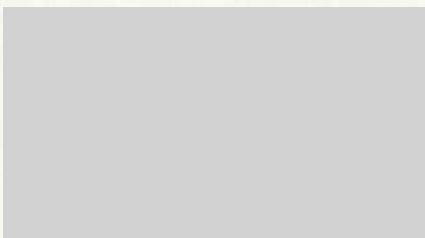
Come funzionano le tecniche di *Natural Language Processing* (NLP)?

DATA SCIENCE

Quali sono le differenze tra i *framework* di processamento per Big Data MapReduce e Spark? Quali vantaggi introduce quest'ultimo?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Che cos'è e quale è la funzione del *Threat Landscape* (ETL) di ENISA?



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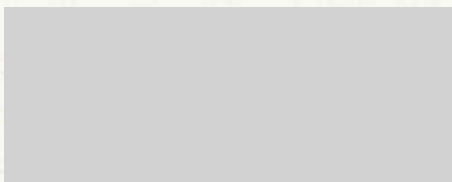
3. Researchers hope AI can alleviate interstate traffic jams

Researchers at Vanderbilt University and other schools around the country are conducting an experiment in Nashville next week to try to decrease the number of stop-and-go traffic jams on a local interstate.

The new experiment will deploy up to 100 cars equipped with adaptive cruise control technology along a 4-mile stretch of Interstate 24 during morning rush hour, according to a news release from Vanderbilt. That stretch of road is outfitted with hundreds of ultra-high definition cameras that will give researchers a digital model of how every vehicle behaves.

Previous research has shown that a small percentage of artificial intelligence-equipped vehicles can go a long way toward alleviating the stop-and-go dynamic that often leads to traffic jams with no obvious cause. In addition to being frustrating, these jams waste fuel and increase pollution.

The experiment next week will help researchers determine whether the traffic improvements from the smaller experiment can be replicated on a much larger scale.



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9

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

Cosa sono gli *smart contract*?

INTELLIGENZA ARTIFICIALE

Il candidato dopo avere illustrato le possibili differenze tra la ricerca informata e la ricerca non informata, descriva le caratteristiche salienti della ricerca euristica.

DATA SCIENCE

Quali approcci statistici possono essere adottati per migliorare la qualità dei dati da analizzare?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Nell'ambito di un progetto ICT complesso il candidato descriva i vincoli peculiari delle metriche di RTO e RPO.



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9. Exodus continues at Twitter as Elon Musk hints at possible bankruptcy

As Elon Musk's ownership of Twitter entered its third week, and following mass layoffs, the billionaire laid bare a delicate financial future for the social media platform, amid an exodus of top privacy and security executives.

Yoel Roth, the head of safety and integrity who had been deputized to publicly address concerns advertisers and users had about the platform, is reportedly the latest to leave the company.

The departures began on the same day Elon Musk addressed employees for the first time, saying that "bankruptcy isn't out of the question", according to multiple reports.

The day began with the resignation of three top security officials – chief information security officer Lea Kissner, chief privacy officer Damien Kieran and chief compliance officer Marianne Fogarty – prompting warnings from the Federal Trade Commission (FTC). (Twitter reached a settlement over privacy issues with the FTC in May.) Following those departures, Roth and Twitter's head of client solutions, Robin Wheeler, also left the company.

In an email to employees and a subsequent staff meeting, Musk did little to inspire confidence in the company's future. In one email, Musk described the horrible economic circumstances the company was in and how important he believed its subscription service, Twitter Blue, was to its future.

"Without significant subscription revenue, there is a good chance Twitter will not survive the upcoming economic downturn," Musk said in the email. "We need roughly half of our revenue to be subscription."

One employee also said at the staff meeting that Musk appeared to downplay employee concerns about how a pared-back Twitter workforce was handling its obligations to maintain privacy and data security standards.



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20

DISTRIBUTED LEDGER TECHNOLOGY E CRYPTOASSET

Qual è la differenza fondamentale tra un *exchange* centralizzato (CEX) e decentralizzato (DEX) di criptovalute e *token*?

INTELLIGENZA ARTIFICIALE

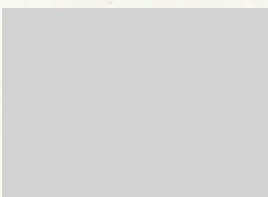
Quali sono i principali limiti e rischi in un modello di *Machine Learning* ad apprendimento supervisionato?

DATA SCIENCE

Cosa è un'architettura lambda per la gestione di Big Data e come è strutturata? Quali vantaggi introduce?

SICUREZZA DEI SISTEMI INFORMATICI E DELLE RETI

Quali sono i cinque elementi del NIST *Cybersecurity Framework*?



af BB

20. China : consumer and factory activity down as virus controls rise

Chinese consumer spending contracted in October and factory activity weakened as anti-virus controls following a rise in infections weighed on the economy.

Retail sales dropped 0.5% compared with a year ago, down from September's 2.5% expansion, as millions of people were confined to their homes, government data showed on Tuesday. Growth in factory output decelerated to 5% from the previous month's 6.3%.

The performance was even weaker than expected by forecasters who said activity would cool as Chinese anti-virus controls and interest rate hikes by the U.S. Federal Reserve and other central banks impacted on global activity.

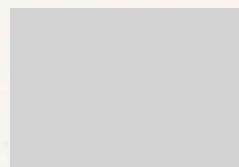
"November is shaping up to be even worse," said Zichun Huang of Capital Economics in a report. Chinese economic growth rebounded to 3.9% over a year earlier in the three months ending in September from the first half's 2.2%, but economists say activity already was cooling. They have cut forecasts of annual growth to as low as 3%, which would be among the weakest in decades.

President Xi Jinping's government has been trying to prop up growth without reviving a rise in corporate and household debt that Beijing worries is dangerously high.

Anti-virus controls were tightened in areas across China following an uptick in infections in mid-October. Apple Inc. warned deliveries of its new iPhone 14 model would be delayed after access to an industrial zone around its biggest factory was suspended due to outbreaks. Other factories and tech businesses have also reduced production as a result of workers who have tested positive to COVID-19 and been isolated.

Beijing announced last week it would try to reduce the impact of its "zero-COVID" strategy, which aims to isolate every infected person, by shortening the quarantine for travellers arriving from abroad and making other changes. However, authorities said they are sticking to a goal of trying to keep cases near zero at a time when other countries are relaxing controls and trying to live with the virus.

The new approach is "a bit of a gamble," Huang wrote. "It could result in a greater spread of the virus, eventually triggering a more forceful response by the government."



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