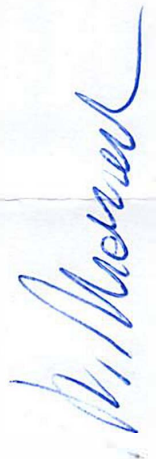N. 1

Domande:

1. Efficienza energetica: Quali strategie possono essere adottate per migliorare l'efficienza energetica in un data center HPC?
2. Come si utilizza la funzione di "Stili" per formattare un documento in Word?

Brano in inglese:

2023 was the year of AI hype. Regardless of whether the narrative was that AI was going to save the world or destroy it, it often felt as if visions of what AI might be someday overwhelmed the current reality. And though I think that anticipating future harms is a critical component of overcoming ethical debt in tech, getting too swept up in the hype risks creating a vision of AI that seems more like magic than a technology that can still be shaped by explicit choices. But taking control requires a better understanding of that technology.

N. 2

Domande:
1. Come fornisce o potrebbe fornire supporto tecnico per risolvere un problema complesso che un utente sta incontrando nell'uso di un'infrastruttura di calcolo distribuito?
2. Come si crea e si applica un sommario automatico in un documento Word?

Brano in inglese:

One of the major AI debates of 2023 was around the role of ChatGPT and similar chatbots in education. This time last year, most relevant headlines focused on how students might use it to cheat and how educators were scrambling to keep them from doing so – in ways that often do more harm than good.

N. 3

Domande:

1. Quali tecnologie e framework utilizzerebbe per sviluppare un middleware basato su microservizi, container e API RESTful, e perché?
2. Come si utilizza la funzione di revisione e commenti in Word per la collaborazione?

Brano in inglese:

However, as the year went on, there was a recognition that a failure to teach students about AI might put them at a disadvantage, and many schools rescinded their bans. I don't think we should be revamping education to put AI at the center of everything, but if students don't learn about how AI works, they won't understand its limitations – and therefore how it is useful and appropriate to use and how it's not. This isn't just true for students. The more people understand how AI works, the more empowered they are to use it and to critique it.

N. 4

Domande:

1. Come si implementa un sistema di monitoraggio efficace per infrastrutture di calcolo distribuite su larga scala?
2. Come si inserisce e si gestisce un indice analitico in Word?

Brano in inglese:

So my prediction, or perhaps my hope, for 2024 is that there will be a huge push to learn. In 1966, Joseph Weizenbaum, the creator of the ELIZA chatbot, wrote that machines are "often sufficient to dazzle even the most experienced observer," but that once their "inner workings are explained in language sufficiently plain to induce understanding, its magic crumbles away." The challenge with generative artificial intelligence is that, in contrast to ELIZA's very basic pattern matching and substitution methodology, it is much more difficult to find language "sufficiently plain" to make the AI magic crumble away.

N. 5

Domande:

1. Architettura di un sistema HPC: Quali sono i componenti chiave di un sistema HPC e come influenzano le prestazioni?
2. Come si utilizza la funzione di registrazione di PowerPoint per creare una presentazione video?

Brano in inglese:

I think it's possible to make this happen. I hope that universities that are rushing to hire more technical AI experts put just as much effort into hiring AI ethicists. I hope that media outlets help cut through the hype. I hope that everyone reflects on their own uses of this technology and its consequences. And I hope that tech companies listen to informed critiques in considering what choices continue to shape the future.

N. 6

Domande:

1. Come assicurerebbe la qualità del software durante lo sviluppo? Descriva le pratiche e gli strumenti utilizzati per il testing, la revisione del codice e il miglioramento continuo, garantendo che il software soddisfi gli standard di qualità e le aspettative degli utenti finali.
2. Che cos'e' un RAID (Redundant Array of Independent Disks) e quali sono i vantaggi delle diverse configurazioni RAID?

Brano in inglese:

In 1970, Marvin Minsky, the AI pioneer and neural network skeptic, told Life magazine, "In from three to eight years we will have a machine with the general intelligence of an average human being." With the singularity, the moment artificial intelligence matches and begins to exceed human intelligence – not quite here yet – it's safe to say that Minsky was off by at least a factor of 10. It's perilous to make predictions about AI.

N. 7

Domande:

1. Quale metodo utilizza o utilizzerebbe per raccoglie feedback dagli utenti riguardo l'uso di una infrastruttura di calcolo distribuita? Può descrivere un esempio ipotetico di come il feedback potrebbe portare a miglioramenti significativi?
2. Come si utilizza la funzione SOMMA.PIÙ.SE (SUMIFS) per sommare valori con più criteri in Excel?

Brano in inglese:

Still, making predictions for a year out doesn't seem quite as risky. What can be expected of AI in 2024? First, the race is on! Progress in AI had been steady since the days of Minsky's prime, but the public release of ChatGPT in 2022 kicked off an all-out competition for profit, glory and global supremacy. Expect more powerful AI, in addition to a flood of new AI applications.

N. 8

Domande:

1. In che modo l'elasticità del cloud computing influisce sull'implementazione delle infrastrutture di calcolo distribuite?
2. Quali sono le differenze tra i vari tipi di memoria cache (L1, L2, L3) e come influenzano le prestazioni della CPU?

Brano in inglese:

The big technical question is how soon and how thoroughly AI engineers can address the current Achilles' heel of deep learning – what might be called generalized hard reasoning, things like deductive logic. Will quick tweaks to existing neural-net algorithms be sufficient, or will it require a fundamentally different approach, as neuroscientist Gary Marcus suggests? Armies of AI scientists are working on this problem, so I expect some headway in 2024.

N. 9

Domande:

1. Interconnessione di rete: Perché la rete di interconnessione è fondamentale in un ambiente HPC e quali sono le sfide associate?
2. Come si inseriscono e si gestiscono i collegamenti ipertestuali e le azioni in una presentazione PowerPoint?

Brano in inglese:

Meanwhile, new AI applications are likely to result in new problems, too. You might soon start hearing about AI chatbots and assistants talking to each other, having entire conversations on your behalf but behind your back. Some of it will go haywire – comically, tragically or both. Deepfakes, AI-generated images and videos that are difficult to detect are likely to run rampant despite nascent regulation, causing more sleazy harm to individuals and democracies everywhere. And there are likely to be new classes of AI calamities that wouldn't have been possible even five years ago.

N. 10

Domande:

1. Come gestisce o gestirebbe l'allocazione delle risorse di calcolo in ambiente distribuito e l'ottimizzazione delle prestazioni? Può descrivere un esempio ipotetico di come migliorerebbe l'efficienza?
2. Quali sono le principali differenze tra le architetture a 32 bit e 64 bit?

Brano in inglese:

Speaking of problems, the very people sounding the loudest alarms about AI – like Elon Musk and Sam Altman – can't seem to stop themselves from building ever more powerful AI. I expect them to keep doing more of the same. They're like arsonists calling in the blaze they stoked themselves, begging the authorities to restrain them. And along those lines, what I most hope for 2024 – though it seems slow in coming – is stronger AI regulation, at national and international levels.

N. 11

Domande:

1. Come implementerebbe la gestione delle risorse e l'orchestrazione dei servizi per supportare diverse piattaforme cloud come AWS e Azure, OpenStack e OpenNebula?
2. Come funziona la gestione della memoria virtuale in un sistema operativo moderno e quali sono i principali vantaggi?

Brano in inglese:

In the year since the unveiling of ChatGPT, the development of generative AI models is continuing at a dizzying pace. In contrast to ChatGPT a year back, which took in textual prompts as inputs and produced textual output, the new class of generative AI models are trained to be multi-modal, meaning the data used to train them comes not only from textual sources such as Wikipedia and Reddit, but also from videos on YouTube, songs on Spotify, and other audio and visual information. With the new generation of multi-modal large language models (LLMs) powering these applications, you can use text inputs to generate not only images and text but also audio and video.

N. 12

Domande:

1. Come si può garantire la sicurezza e la privacy dei dati in un'infrastruttura di calcolo distribuita?
2. Come si utilizza la funzione di "Unione Dati" per creare lettere personalizzate in Word?

Brano in inglese:

Companies are racing to develop LLMs that can be deployed on a variety of hardware and in a variety of applications, including running an LLM on your smartphone. The emergence of these lightweight LLMs and open source LLMs could usher in a world of autonomous AI agents – a world that society is not necessarily prepared for.

N. 13

Domande:

1. Che cos'e' un sistema di trouble ticket e a cosa serve?
2. Come funziona la tecnologia Hyper-Threading di Intel e in che modo differisce dal multi-threading tradizionale?

Brano in inglese:

These advanced AI capabilities offer immense transformative power in applications ranging from business to precision medicine. My chief concern is that such advanced capabilities will pose new challenges for distinguishing between human-generated content and AI-generated content, as well as pose new types of algorithmic harms.

N. 14

Domande:

1. Quali sono i principali vantaggi dell'utilizzo di infrastrutture di calcolo distribuite rispetto ai sistemi centralizzati?
2. Come si proteggono i documenti Office con password e permessi di accesso?

Brano in inglese:

The deluge of synthetic content produced by generative AI could unleash a world where malicious people and institutions can manufacture synthetic identities and orchestrate large-scale misinformation. A flood of AI-generated content primed to exploit algorithmic filters and recommendation engines could soon overpower critical functions such as information verification, information literacy and serendipity provided by search engines, social media platforms and digital services.

N. 15

Domande:

1. Quali meccanismi di autenticazione e autorizzazione adotterebbe per garantire l'accesso sicuro ai servizi in ambiente cloud?
2. Come funziona il bus di sistema e quali sono i principali tipi di bus utilizzati nei PC moderni?

Brano in inglese:

The Federal Trade Commission has warned about fraud, deception, infringements on privacy and other unfair practices enabled by the ease of AI-assisted content creation. While digital platforms such as YouTube have instituted policy guidelines for disclosure of AI-generated content, there's a need for greater scrutiny of algorithmic harms from agencies like the FTC and lawmakers working on privacy protections such as the American Data Privacy & Protection Act.

N. 16

Domande:

1. Sicurezza in HPC: Quali sono le principali preoccupazioni di sicurezza quando si opera con sistemi HPC?
2. Come si crea e si gestisce un modello personalizzato in Word, Excel o PowerPoint?

Brano in inglese:

A staggering 74 percent percent of companies are dissatisfied with their current job scheduling and orchestration tools and face compute resource on-demand allocation and team productivity constraints. 74 percent of respondents see value in having compute and scheduling functionality as part of a single, unified AI/ML platform (instead of cobbling together an AI infrastructure tech stack of stand-alone point solutions), but only 19 percent of respondents actually have a scheduling tool that supports the ability to view and manage jobs within queues and effectively optimize GPU utilization.

N. 17

Domande:

1. Quale approccio adotta o adotterebbe per creare e aggiornare documentazione tecnica (per infrastrutture cloud/HPC)?
2. Come si applicano le regole di formattazione condizionale in un foglio di calcolo?

Brano in inglese:

Optimizing GPU utilization and GPU partitioning are major concerns, with the majority of GPUs underutilized during peak times. 40 percent of respondents, regardless of company size, are planning to use orchestration and scheduling technology to maximize their current compute investments of their existing AI infrastructure. Only 42 percent of companies have the ability to manage Dynamic MiG/GPU partitioning capabilities to optimize GPU utilization.

N. 18

Domande:

1. Quali protocolli di comunicazione sono più adatti per le infrastrutture di calcolo distribuite e perché?
2. Qual è il ruolo del chipset in una scheda madre e come influisce sulle prestazioni del sistema?

Brano in inglese:

Cost is the key buying factor for inference compute. To address GPU scarcity, 52 percent of respondents reported actively looking for cost-effective alternatives to GPUs for inference in 2024 as compared to 27 percent for training. 20 percent were interested in cost-effective alternatives to GPU but were not aware of existing alternatives.

N. 19

Domande:

1. Descrivere l'architettura di uno dei principali cloud management framework, illustrando i componenti principali e le loro interazioni.
2. Come si utilizza la funzione SE (IF) annidata per creare formule complesse in Excel?

Brano in inglese:

This indicates that cost is a key buying factor for inference solutions. We expect that while industries are still in early days for inference, the demand for cost-efficient inference compute will grow.The biggest challenges for compute were latency, followed by access to compute and power consumption. Over half of respondents plan to use language models (like LLama), followed by embedding models (BERT and family) (26 percent) in their commercial deployments. Mitigating compute challenges will be essential in their plans.

N. 20

Domande:

1. Definizione di HPC: Cosa si intende per High Performance Computing e quali sono i suoi principali campi di applicazione?
2. Come si utilizza la funzione CERCA.VERT (VLOOKUP) in Excel?

Brano in inglese:

The survey includes responses from AI/ML and technology leaders at 1,000 companies of various sizes across North America, Europe, and Asia Pacific. The report focuses on: 1) how executives are building their AI infrastructure, 2) the critical benchmarks and key challenges they face, and 3) how they rank priorities when evaluating AI infrastructure solutions against their business use cases. The report dives into respondents' current scheduling, compute, and AI/ML needs for training and deploying models and AI framework plans for 2024-2025.

N. 1

Domande:

1. Quali approcci e strumenti considererebbe per implementare un sistema di monitoraggio efficace per un'infrastruttura cloud? Potrebbe descrivere le metriche principali da monitorare e come i dati raccolti possono essere utilizzati per ottimizzare le prestazioni e garantire l'affidabilità del sistema?
2. Come funziona la comunicazione tra CPU e RAM e quali sono le tecnologie che migliorano questa comunicazione (es. Dual Channel, Triple Channel)?

Brano in inglese:

One of the primary drivers propelling hypergrowth in the AI infrastructure market is the realization among organizations of how AI can drive their operational efficiency and workforce productivity as the leading business use case. Companies are recognizing the need for Gen AI solutions to extract actionable insights from their internal knowledge bases and plan to deploy Gen AI to boost their competitive edge, enhance knowledge worker productivity, and impact their bottom line.

N. 2

Domande:

1. Quali strumenti di provisioning e configurazione automatica utilizzerebbe per gestire efficacemente un'infrastruttura cloud? Può descrivere come questi strumenti facilitano la scalabilità, la ripetibilità e la sicurezza delle operazioni di deployment e gestione delle risorse?
2. Come si crea una presentazione con master diapositiva personalizzati?

Brano in inglese:

As companies navigate the AI infrastructure market, they are seeking clarity, peer insights and reviews, as well as industry benchmarks on AI/ML platforms and compute. To understand executives' biggest pain points in moving AI/ML to production, this survey examined not only model training, but also model serving and inference.

N. 3

Domande:

1. Descrivere i modelli di servizio cloud (IaaS/PaaS/SaaS) e fornire esempi specifici di come ciascun modello potrebbe essere utilizzato per rispondere alle esigenze di diversi casi d'uso.
2. Come si crea una tabella pivot e quali sono le sue principali funzioni?

Brano in inglese:

There are lots of claims about how businesses are addressing their rapidly evolving AI infrastructure resource needs and incorporating Generative AI into their products. This report provides hard data to answer these questions," said June Paik, FuriosaAI's CEO. "In particular, it shows how businesses are actively looking for new, cost-effective options for inference compute. We're excited to see that our second-gen product, launching later this year, directly addresses one of the top concerns cited in the report.