**The Future of the Web: From Cloud to Edge using Server-Side Components, React 18, and Next.js 13".**

The Future of the Web: From Cloud to Edge using Server-Side Components, React 18, and Next.js 13 is an article that discusses the trend of moving computing power from the cloud to the edge of networks, in which devices at the edge (e.g. smart speakers, smartphones) can perform some processing tasks locally rather than relying on the cloud. This trend is driven by the increasing demand for low-latency and high-performance applications, as well as the need for offline capabilities and data privacy. The article also mentions the use of server-side components, which are pieces of code that run on the server rather than the client, and the use of React 18 and Next.js 13, which are JavaScript libraries and frameworks for building web applications.

**What Is Cloud Computing?**

Cloud computing refers to the use of hosted services, such as data storage, servers, databases, networking, and software over the internet. The data is stored on physical servers, which are maintained by a cloud service provider. Computer system resources, especially data storage and computing power, are available on-demand, without direct management by the user in cloud computing.

**What Is Edge Computing?**

Edge computing is a distributed computing paradigm that brings computation and data storage closer to the location where it is needed, to improve response times and save bandwidth. In edge computing, devices at the edge of a network, such as sensors, actuators, and other types of IoT devices, perform some processing tasks locally rather than sending all the data to the cloud for processing. This can be useful in situations where real-time processing is required, or where the latency of sending data to the cloud and back would be too high. Edge computing can also be used to reduce the load on the cloud by offloading some processing tasks to the edge devices, and to improve the reliability and availability of applications by enabling them to continue functioning even when there is no connection to the cloud.

**search engine optimization**

Search engine optimization (SEO) is the process of improving the ranking of a website on search engines such as Google. When people search for specific keywords or phrases, search engines try to find the most relevant and high-quality websites to show in the search results. SEO involves making changes to your website and its content to make it more attractive to search engines and to help them understand what your website is about. The goal of SEO is to improve the visibility of your website in the search results, which can lead to more traffic and more business. Some common techniques used in SEO include adding keywords to website content, optimizing the structure and tags of a website, and building high-quality backlinks from other websites.

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**Introduction**

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**Beginning of the Cloud**

**React and Edge computing**

**Nextjs and turbopack webpack**

* Nextjs building better compiler and render infrastructure

Slide 1 Terminologies

1. Server
2. Cloud
3. Edge computing
4. cdn
5. serverless

Slide2 Cloud computing vs Edge computing

Slide 3

**Examples and Use Cases of Edge Computing**

Slide 4

Top 10 Best Edge Computing Practices to Follow in 2022

An October 2019 report by IDC predicts that by 2023, more than 50% of the newly deployed infrastructure will be in increasingly critical edge locations rather than corporate data centers, up from less than 10% today.

points

1. Edge computing roots can be traced back to content delivery networks (CDN) and has since evolved into the undeniable necessity it is today.
2. edge computing is on its way to becoming the next step in the evolution of cloud computing. Does that mean that edge will replace the cloud? Well, that’s unlikely to happen. Edge is more like an extension to the cloud.
3. “Edge computing addresses the limitations of centralized computing (such as latency, bandwidth, data privacy, and autonomy) by moving processing closer to the source of data generation, things, and users”.
4. While IoT and web hosting find edge beneficial for faster performance, they still require a reliable cloud backend for centralized storage.