

Our insights on investing in artificial intelligence

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Sanjay Devgan

You know, people have been trying to model human intelligence in computer systems for 30-plus years. There have been papers that have written on AI that date more than 30 years old. What's interesting is if you kind of look at now and the confluence of events that I was talking about, you need compute power. You need connectivity. You need storage. I mean, those are kind of the fundamental building blocks. AI, if you boil it down, it literally is it's just billions and billions of calculations, just simple math matrix multiplication. But you need to do it many times and then you need to bring that back. And so the calculation isn't complex. It's just the number of nodes needed to process it is massive.

Rahul Narang

The speed of which is being used is breathtaking. We're seeing a faster cadence of product releases from companies, which is helping the experience for end users. Microsoft recently released several copilots, which is enhancing productivity for code generation. Other areas where we're seeing AI being used are in content creation, customer service, fraud detection, supply chain optimization, as well as predictive maintenance. Health care will be a very interesting use case for AI where patient diagnosis, treatment and monitoring could be impacted. Specialized large language models could really help increase the discovery of lifesaving drugs. And longer term, we expect AI being used in some advanced use cases, such as autonomous driving and robotics.

Paul Wick

There are a whole bunch of things that are pretty exciting. One is just the semiconductor technology to train the data set is really interesting. So obviously NVIDIA has the early lead, they're the dominant company with their graphics processors used in training purposes for these billions and trillions of parameters in these large language models. But there are other companies, especially the hyperscalers, Meta, Amazon, Microsoft, Google, that are all developing their own custom semiconductors for both training and inferencing large language models. And those companies are spending a tremendous amount of money on designing their own chips. So the companies that are helping Amazon, Microsoft, Google, etc. create these new chips are going to do very well. So that would be the ASIC suppliers like Marvell and Broadcom that are doing, you know, right now doing the custom processors, for example, for Google.

Rahul Narang

As this technology continues to evolve and we get more computing power, other subsectors of the technology substack will benefit. For instance, IT services companies that enable AI use cases will benefit from this as well as software companies that are part of the AI ecosystem. What's really important here is that data is a key differentiator that will help expand the competitive moats of a lot of these mega-cap technology companies, and they will continue to benefit from AI.

Sanjay Devgan

The Microsofts, the Facebooks, the Metas, the Amazons, etc. They will definitely have a play because they can afford to buy these, you know, spend the billions of dollars. But I think there will be kind of vertical applications for certain end markets or certain AI-related needs in certain end markets. And, you know, there are going to be some smart people, some smart kids in their dorms that can leverage this technology to create a business off of it. And that's where you're going to kind of see the opportunity. But in terms of the folks offering the AI service, I think that is... there's too big a moat. You know, I just think that the moat is too big. It's going to be the people that leverage that AI service to then come up with a business model. That's where you could see an opportunity for new players, so to speak.

Paul Wick

There's another aspect to the plumbing that's quite interesting, though, and that has to do with just the electricity to run these data centers. These data centers are incredibly power hungry.

Sanjay Devgan

People don't realize that like an AI data center, you probably need 30 megawatts of power, which...where are you going to get 30 megawatts of power? There's also, by the way, a big backlog of factories that want to come online. I think it's like a four- or five-year backlog of factories that want to come online, but they can't because they need power hook ups.

Rahul Narang

Similar to how some of these other technologies like the internet and cloud computing had a lasting impact on the global economy, we expect AI to add \$7 trillion of global economic impact over a ten-year period. We are seeing tangible results in some of the companies. But again, you want to be very careful of the hype and stay focused on some of these long-term secular winners that are benefiting from this theme.

Sanjay Devgan

I think as an investor, it's very important to be kind of aware of this upselling of AI where to aspects that, you know, they may not be a direct AI beneficiary, maybe they're tertiary or, you know, down the road they're tangential. And so you have to be aware of that.

Rahul Narang

One needs to be careful, you know. You don't want to get caught up in the hype. You want to be wary of pretenders versus contenders, and you really want to focus on the business model. Does this company have a durable, competitive moat? Look at the product differentiation. Look at, you know, what their unit economics are. Yes, this is happening quickly right now, but that's part of technology investing. You know, you get these spurts of innovation. Stocks move quickly on that. And then they tend to base. And then our job is to really find the winners that we believe in and not get caught up in, you know, these other companies that are... that may not have product differentiation, but actually, you know, are more hype. So we're really trying to find those durable winners and stick with them over time.

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