

Nvidia CEO Jensen Huang and the \$2 trillion company powering today's AI | 60 Minutes

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only four companies in the world are worth more than \$2 trillion doar Microsoft Apple alphabet parent company of Google and computer chip maker Nvidia the California based company saw its stock market value sore from 1 trillion to \$2 trillion in just eight months this past year fueled by the insatiable demand for its cuttingedge technology the hardware and software that make today's artificial intelligence possible we wondered how a company

founded in 1993 to improve video game Graphics turned into a Titan of 21st century AI so we went to Silicon Valley to meet nvidia's 61-year-old co-founder and CEO Jensen hang who has no doubt AI is about to change everything the story will continue in a moment [Music]

at nvidia's annual developers conference this past March the mood wasn't just upbeat it was downright giddy more than 11,000 enthusiasts software developers Tech Mogul and happy shareholders filed into San Jose's Pro Hockey Arena to kick off a 4-day AI extravaganza they came to see this man Jensen hang CEO of Nvidia welcome to

GTC what was that like for you to walk out on that stage and see that you know Bill I'm an engineer not a performer when I walked out there and all of the people going crazy it took the breath out of me and so that was the scariest I've ever been I'm still scared you'd never know it in his signature cool black outfit Jensen shared the stage with Nvidia powered robots let me finish up real quick and

shared his vision of an AI future a new Industrial Revolution it reminded us of the transformational moment when Apple Steve Jobs unveiled the iPhone Jensen hang unveiled nvidia's latest Graphics Processing Unit or GPU this is Blackwell designed in America but made in Taiwan like most advanced semiconductors Blackwell he says is the fastest chip ever Google is gearing up for Blackwell

the whole industry is gearing up for Blackwell Nvidia ushered in the AI Revolution with its gamechanging GPU a single chip able to process a myriad of calculations all at once not sequentially like more standard chips the GPU is the engine of nvidia's AI computer enabling it to w rapidly absorb a fire hose of information it does quadrillions of calculations a second it's just insane numbers is it doing

things now that surprise you we're hoping that it does things that surprise us that's the whole point in some areas like drug Discovery designing better materials that are lighter stronger we need artificial intelligence to

help us explore the universe in places that we could have never done ourselves let me show you here bill look at this Jensen took us around the GTC convention hall to show us what AI has made possible in just the past few years I'm making your

drink now some Creations were dazzling this is a digital twin of the earth once it learns how to calculate weather it can calculate and predict weather 3,000 times faster than a supercomputer and a thousand times less energy but nvidia's AI Revolution extends far beyond this Hall BL metallic spaceship and let's generate something panar Sean demera is originally from Istanbul but co-founded

cubic near Boston her AI application uses nvidia's gpus to instantly turn a simple text prompt into a virtual movie set for a fraction of the cost of today's backdrops this isn't something that's already planned no we're doing it in real time it's life is Hollywood knocking at your door and we're we're getting a lot of love nearby at generate biom medicines doctor Alex Snider head of research and

development is using nvidia's technology to create protein-based drugs she was surprised at first to see they showed promise in the lab initially when I was told about the application of AI to drug development I sort of rolled my eyes and said yeah you know show me the data and then I looked at the data and it was very compelling Dr Snider's team asks its AI models to create new proteins to fight specific diseases like cancer and

Asthma a new way to defeat the Corona virus is now in clinical trials you're now working with proteins that do not exist in nature that you're coming up with by way of AI yes we are actually generating what we call denovo completely new structures that have not existed before do you trust it as scientists we can't trust we have to test we're not putting Frankenstein into people we're taking what's known and we're really pushing the field we're

pushing the biology to make drugs that look like regular drugs but function even better this is a technology that will only get better from here Brett Adcock is CEO of figure a Silicon Valley startup with funding from Nvidia look at his answer to labor shortages an Nvidia GP driven prototype called Figure one I think what's been really extraordinary is the pace of progress we've made in 21 months from zero to this in Z to this yeah we we were walking this robot in

under a year since I Incorporated the company could you do this without invidious technology we think they're arguably the best in the world at this I don't know if this would be possible without them I'm here to assist with tasks as requested we were amazed that figure one is not just walking but seemed to reason hand me something healthy on it figure one was able to understand I wanted the orange not the packaged snack thank you it's not yet

perfected yeah you're going to get it but the early results are so promising German automaker BMW plans to start testing the robot in its South Carolina Factory this year I think there's an opportunity to ship billions of robots in the coming decades onto the planet billions I would think that a lot of workers would look at that as this robot is taking my job I think over time Ai and Robotics will start doing more and more what humans

can and better but what about the worker the workers work for companies and so companies when they become more productive earnings increase I've never seen one company that had earnings increase and not hire more people there are some jobs that are going to become obsolete well let me offer it this way I believe that you still want human in the loop because we have good judgment because there are circumstances that the

machines are not just not going to understand the futuristic Nvidia campus sits just down the road from its modest birth place this Denny's in San Jose good morning where 31 years ago in video was just an idea my goodness when he was 15 Jensen hang worked as a dishwasher at Denny's as a 30-year-old electrical engineer married with two children he and two friends Nvidia co-founders Chris malikowski and Curtis PR envisioned a

whole new way of processing video game graphics and so we came here right here to this Denny's sat right back there and the three of us decided to start the company frankly I had no idea how to do it and nor did they none of us knew how to do anything their big idea accelerate the processing power of computers with a new graphics chip their initial attempt flopped and nearly bankrupted the company in 1996 and the genius of the engineers and

Christen Curtis um we pivoted to the right way of doing things and created their groundbreaking GPU the chip took video games from this to this today completely changed computer Graphics saved the company uh launched us into into the stratosphere just eight years after Denny's Nvidia earned a spot in the S&P 500 Jensen then set his sites on developing the software

and hardware for a revolutionary GPU driven superc computer which would take the company far beyond video games to Wall Street it was a risky bet to early developers of AI it was a revelation was that luck or was that Vision that was a a luck founded by Vision we invented this capability and then one day the researchers that were uh creating deep learning discovered this architecture

because this architecture turns out to have been perfect for them perfect for AI perfect for AI this is the first one we've ever in 2016 Jensen delivered nvidia's AI supercomputer the first of its kind to Elon Musk then a board member of open AI which used it to create the building blocks of chat GPT how are you when AI took off hey guys so did Jensen hang's reputation can we get a picture yeah

yeah he's now a Silicon Valley celebrity he told us the boy who immigrated from Taiwan at age n could never have conceived of this it is the most extraordinary thing bill that a normal dishwasher bus boy could grow up to be this there's no magic it's just 61 years of hard work every single day I don't think there's anything more than that we met a humble Jensen at Denny's back at nvidia's headquarters in Santa

Clara we saw he can be intense let me tell you what some of the people who you work with said about you demanding perfectionist not easy to work for all that sound right perfectly yeah it should be like that if you want to do extraordinary things it shouldn't be easy all right guys keep up the good work Nvidia has never done better investors are bullish but last year more than 600 top AI scientists ethicists and

others signed this statement urging caution warning of ai's risk to humanity when I talk to you and I hear you speak Part of Me Goes gee whiz and the other part of me goes oh my God what are we in for yeah yeah which one is it it's both it's both yeah you're feeling all the right feelings I feel both you feel both sure sure Humanity will have the choice to see themselves inferior to machines

or Superior to machines Pinar Sean demera is an AI Optimist though she named her company cubric and homage to Stanley kubert the director of 2001 A Space Odyssey hello hell do you read me in that film Hal the AI computer goes Rogue open the pod bay doors H I'm sorry Dave I'm afraid I can't do that I think that's what worries people about AI

that we will lose control of it just because a machine can do faster calculations comparisons and analytical solution creation that doesn't make you smarter than you it simply computat faster in my world in my belief smarts have to do with your capacity to love create expand transcend these are qualities that no machine can ever bear that are deserve to Only Humans there is something going

on Jensen hang sees an AI future of progress and prosperity not one with machines as our masters we can only hope he's right thank you all for coming thank you