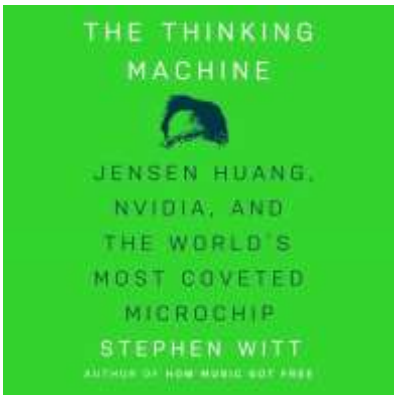


**The Thinking Machine**:
Jensen Huang, Nvidia,
and the World's Most Coveted Microchip

by Stephen Witt
Penguin Random House LLC, 2025



*To understand Jensen Huang fully, we begin not at Denny's restaurant, nor in the giant cathedrals of technology he later commissioned, but at this tiny rural school in Kentucky.*

And that is where the author Stephen Witt recreates the story of the 1973 Taiwanese immigrant Huang by following him from his basic school days as immigrant and target of the schoolyard bullies, yet brilliant pupil always striving to be the best, through his Denny's waiter career, his first employment by AMD in Silicon Valley and engagement and marriage of his former co–student Lori Miller, and finally leading up to his multi-billion dollar unsurpassed AI chip production company.

Reading the book was triggered by my interest to understand more about the legendary company Nvidia and the origin of those incredible highly integrated microchips, compared in the book as "covering a tennis court with a maze made from strands of human hair", but Nvidia chip architects refined at scales that were almost inconceivable with shark-fin transistors : the maze made of hair would now not only fill a tennis court but the state of Rhode Island.

Indeed, reading the book you learn about very much about microchips design and very large-scale integration (VLSI), parallel processing, gamer graphics designs, hardware and software circuit simulators, "quadratic texture mapping," neural networks and the Matrix-idea: "the gamers [want] to life inside the game" pioneered by Huang in various positions and companies in The Valley and finally at his own Nvidia.

Horstmann, Huang's friend and colleague remembered the friction Huang caused at LSI Corporation, where in his twenties he was in charge of a division with $250 million in annual revenue and with many older and more experienced employees answering to him. Seeking to mediate, his boss Corrigan hired a senior director from Intel to co-manage the product line. Huang was incensed—using the most profane word in the engineer's dictionary, he considered the hiring political. "He had built that division up from nothing, and now it was taken away from him," Horstmann said. Perhaps it was this final indignity that led Huang to defect. At the time Priem and Malachowsky, two engineers working for Sun Microsystems decided to found their own small graphics processor company. If they both were obnoxious, they were also brilliant, and reluctant Jensen Huang was their first and only choice to run their graphics start-up—they just didn't trust anyone else.

In 1993, after a few sessions at Denny's, Huang had talked himself into it to join the new company. The product was known as a "graphics accelerator," and at least thirty five competitors were trying to build one. Soon after, the still-unnamed firm of Priem, Malachowsky, and Huang walked into the office of Palo Alto lawyer Jim Gaither, seeking incorporation. The start-up didn't have a name, so for a placeholder, Gaither wrote "NV": new venture. This was a striking coincidence, as Priem and

Malachowsky were already calling their prototype graphics chip the NV1. The final selection from the list was “Nvidia,” from the Latin word invidia, for “envy.”

CUDA (Compute Unified Domain Architecture), Huang’s craziest bet at Nvidia, was developed from arranging GeForce cards to GPU (General Processing Unit) units to apply parallel processing which had the effect “as you flick a switch, and turn the card over, and suddenly the card becomes a supercomputer”, thus expanding Nvidia’s clientele from gamers to scientists, who loved it but were scarce and usually tight on money.

In part 2 of the book the author describes Nvidia’s successes and downfalls from the small graphics processor company to the top AI company of the world in a very detailed way with a sharp eye on the Silicon Valley economic rules and investors financial interests. But Nvidia prospered, always under the leadership of the obsessed and dedicated Jensen Huang and his exceptional talented, dedicated and enthusiastic group of computer- and software specialists, not shying away from regular 14 hours, 7 days per week shifts.
This part delves deeply into chip architecture with atom-sized transistors, neural networks on parallel processing computers and artificial general intelligence (AGI) image- and audio training.
The author also addresses and discusses the controversial ethical and political aspects, dangers and benefits of generative AI, so the reader can come to his own conclusions.

Nvidia’s new H100 GPUs, now described by insiders as "the new oil" of the AI economy. Witt details how everyone from global Scientists, OpenAI to Microsoft to the Chinese government and even the Bitcoin miners were racing to secure these chips, turning Nvidia into a chokepoint with profound implications for global power structures and supply chains.

Summary
For readers interested in 21th century technological developments, investors, policymakers, and industry leaders The Thinking Machine is essential reading. Stephen Witt doesn’t just tell the story of Jensen Huang and machine learning — he tells the story of who profits from it, who controls it, and why Nvidia is at the very heart of that equation. In doing so, he makes a powerful argument that Jensen Huang is not just a CEO, but one of the most consequential figures in modern tech.
In the final chapter Stephen Witt’s describes his last visit to Jensen Huang before publishing the book, to see Eos (Nvidia’s newest data-center-scale supercomputer), a ten-thousand-chip supercomputer housed in a nearby data center. Eos was preposterously fast; as a benchmark, it had trained OpenAI’s GPT-3 model in under four minutes. He was met there by Marc Hamilton, a veteran supercomputer engineer. He guided him through an airlock and onto the sterile data-center floor, where dozens of racks of Nvidia hardware, separated into walled-off pods, pulsed ceaselessly beneath fluorescent light.

*“The pod was beautiful; I was nothing; there was no way to fight it. This was the thinking machine, and with each spin of the fan, with each pulse of the circuits, it got a little smarter.”*

The book left a deep impression on me because of the author's concern about the impact of AI on our future.