

ture a campy original song written and sung by Garrison Keillor.

The Cannes honors brought the number of awards the "Grrr" campaign has won to 28. By taking the Grand Prix for the TV spot and a Titanium, agency Wieden & Kennedy,

its "consistently outstanding and groundbreaking work."

PlayStation's five Lions this year, including a TV Gold, came for ads by TBWA/London. The ads illustrate life from a gamer's perspective, such as one ad that shows golfers

singer's cent, a parody of rapper 50 Cent. Included was a 5 Cent ring tone: *Get Tighter With Your Posse*.



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626

called undue haste.

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His comments came a day after

Intel, shift to laptops could be hurdles for Nvidia

Continued from 1B

video recorders are all using computer parts. Before long, it will be hard to find an electronic device that doesn't have computer chips inside.

That could create soaring demand for the chips that Nvidia and ATI make.

"There's a ton of potential beyond (the computer market)," says equity analyst Nicholas Aberle at Caris & Co. "A lot of other markets — cellphones, digital television, gaming consoles — are starting to rely on advanced graphics capabilities."

Cover story

Big improvements in graphics technology are accelerating the shift. Nvidia wants to develop chips so sophisticated that computer graphics become indistinguishable from film, says Huang, 42.

In Nvidia's Silicon Valley headquarters, Huang recently demonstrated what Nvidia chips can do today by playing video clips of computer-generated monsters and beautiful women. The images are stunning but still look artificial. Yet Huang can't stay in his seat as he talks about how far graphics have come. He jumps out of his chair to point out the subtle shading of a character's face, the texture of her skin, the faint outline of veins beneath.

He's clearly excited about the possibilities for computer graphics. Tech analysts are, too, and they say Nvidia is in a strong position to take advantage of the growing market. That's good news for Huang, who owns about 7% of Nvidia's stock and who has spent much of his life making the best of tough situations.

Apples from angst

Born in Taiwan, Huang moved to Thailand as a child when his engineer father took a job there. But political trouble in the area made his parents uneasy. They sent Huang, 9, and his 10-year-old brother to Tacoma, Wash., to live with an aunt and uncle they had never met.

The family couldn't handle two more boys. The Huang brothers headed to what their parents thought was a boarding school in rural Kentucky. Instead, it was a Baptist reform school for troubled children.

"I learned every four-letter word," Huang says. "Everybody smoked, so I smoked." After school, Huang was required to clean the boys' dorm. His brother worked on a tobacco farm.

But, Huang says, he didn't want to return to Asia. "We missed our parents, but we loved America so much," he says. "There was an apple tree outside my window. You could eat all the apples you wanted. In Thailand, that's a month's salary."

Huang and his brother stayed at the school for two years. When their parents finally immigrated to the United States, the family reunited in Oregon.

Huang says his parents' guidance through those tough early years gave him the skills to run Nvidia. He learned discipline and technical skills from his father and the ability to adapt to changing situations from his mother. These talents "help me communicate and inspire people during difficult times," Huang says.

An adept adapter

Huang will need both sets of skills if Nvidia is to profit from shifts in the graphics-chip industry.

Nvidia already is pushing hard into the consumer-electronics market. Its biggest win: the graphics chip for Sony's upcoming PlayStation 3 video game system. The much-coveted deal partners Nvidia with the hottest game system on the market, giving it name recognition and cachet among serious video game fans.

Perhaps more important, the deal puts Nvidia "at the intersection of consumer electronics and computing," says Huang, who also wants to put Nvidia chips in cars, TVs and cellphones.

At the same time, Nvidia must fight growing threats to its traditional business of stand-alone PC graphic chips, which make up about 67% of its business:

Nvidia grows up, looks for new markets

Company profile

Headquarters: Santa Clara, Calif.

Employees: 2,000

Products: Graphics and other computer chips for PCs, video games and electronics.

Major customers include: Sony, Dell, Hewlett-Packard

Ticker: NVDA

Jen-Hsun Huang

Title: President and CEO

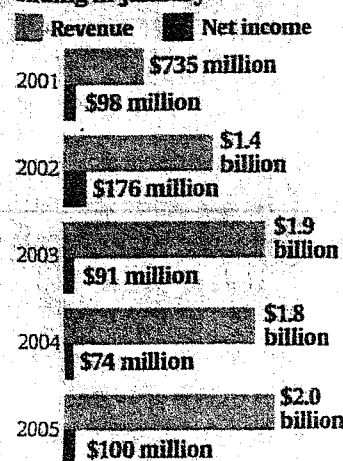
Education: Bachelor's degree in electrical engineering, Oregon State University. Master's degree in electrical engineering, Stanford University

Previous jobs: Designed microprocessors for Advanced Micro Devices; held management positions at LSI Logic

Family: Wife, Lori Huang; 15-year-old son and 13-year-old daughter

Sources: Nvidia, CSI, USA TODAY research

Earnings by fiscal year, ending in January



► **Intel looms.** As graphics technology improves, specialized graphics chips aren't as important for such everyday tasks as e-mail or word processing. That has created an opening for chip giant Intel, best known for its processors.

Intel sells a basic graphics system packaged with other computer chips. PCs with these chips have trouble playing sophisticated video feeds because the picture usually jerks and lacks detail, says chip analyst Dean McCarron at Mercury Research. But they're fine for business or simple home PCs, he says. About 57% of PCs have this kind of chip, and Intel is pushing for more, McCarron says.

► **Laptops.** A shift toward laptops is another threat. Last month, laptops made up 53% and desktops 47% of PCs sold, says researcher Current Analysis. Laptops aren't ideal for high-end graphics chips because they have small screens. Nvidia says it's working hard on its graphics-chip line for laptops.

Also, rival ATI is wooing Nvidia's customers. In the first quarter of 2005, ATI had 55% of the worldwide market for stand-alone graphics chips, while Nvidia had 40%, says Mercury Research. The near-opposite was true a year ago, but Nvidia lost share after struggling with production problems and dis-

continuing some products, McCarron says.

Still, Nvidia is "definitely regarded as a technology leader," Caris & Co.'s Aberle says. "There's a lot of give-and-take (in the graphics-chip business), but right now it appears Nvidia has the momentum."

And the company has a history of dramatic rebounds.

Starting over

Huang and two friends, Chris Malachowsky and Curtis Priem, founded Nvidia in 1993 to take advantage of the new market for specialty PC graphics chips. Nvidia would design chips and hire an outside manufacturer to make them.

Unfortunately for Nvidia, others had the same idea. "At first there were no graphics companies," Huang says. "Before you knew it, there were 50 companies. Everybody and their cousin was making graphics chips."

And they all made them in different ways. The technology Nvidia used worked well at first and won

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— Jen-Hsun Huang, Nvidia

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U.S. manufacturers contend that
the system has undervalued the
yuan by as much as 40%, making
Chinese products cheaper in the
domestic market and American
goods more expensive in China.
The Bush administration has
been pressing Beijing to change its

ing does not move to a more flex-
ible currency system.
Wen reiterated that China's long-
term goal remains what he called a
"market-based, well-managed and
floating exchange-rate system."
The goal of that system would be to
keep the exchange rate "stable at a
reasonable and balanced level."

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Company profile

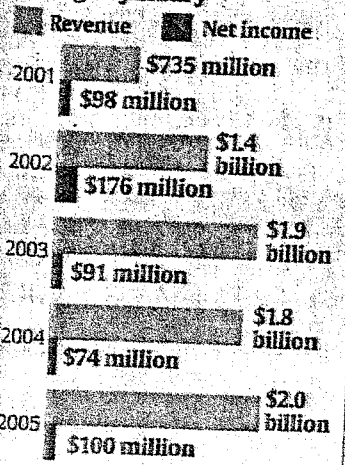
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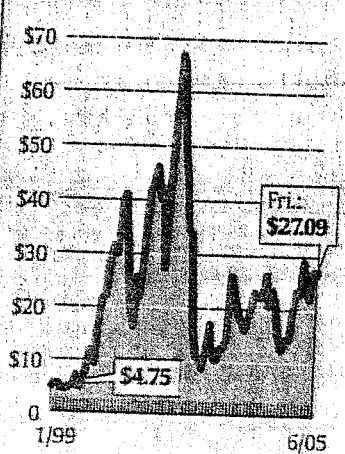
Sources: Nvidia, CSI, USA TODAY research

Earnings by fiscal year, ending in January



Nvidia fortunes fall — and rise

Monthly stock prices:



By Marcy E. Mullins, USA TODAY

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USA TODAY

support from then-hot video game
company Sega. By 1995, the indus-
try moved toward a different tech-
nology, making Nvidia's chips al-
most worthless.

"We had \$3 million left in the
bank," Huang says. "We had one
last shot to completely start from
scratch."

Huang laid off much of his staff.
Many people thought Nvidia had
gone out of business.

But Nvidia bounced back with
new chips. The company landed a
contract with PC-maker Gateway,
then Dell — which had earlier in-
sisted that "nobody needs 3-D
graphics," Huang says. Suddenly,
Nvidia chips were in demand. Rid-
ing the wave, the company went
public in 1999 for \$12 a share.

The stock soared after Nvidia an-

nounced it would provide the
graphics chip for Microsoft's Xbox
video game system. In January
2002, shortly after Xbox went on
sale, Nvidia's stock price topped
\$72 a share.

Then Microsoft and Nvidia start-
ed fighting over the price of the
chips. The case was settled out of
court for an undisclosed sum after
months of bitter negotiations.

It hurt Nvidia. Microsoft gave the
Xbox 2 contract to ATI. It also
worked closely with ATI on an up-
dated graphics standard for Win-
dows — giving ATI an advantage.

Inventory problems and an over-
all tech-spending slump didn't
help. By October 2002, Nvidia's
shares were trading below \$8.

Today, Nvidia's stock is back up
to \$27.09, and its prospects look
bright. The new graphics chip re-
leased last week has won praise as
its most impressive yet. Gamers are
expected to pay about \$600 for the
chip and accompanying compo-
nents.

In comparison, a basic Intel
graphics system often costs "a dol-
lar or two," says McCarron of Mer-
cury Research.

Nvidia is pushing into other
kinds of computer chips, such as
those that help allocate resources
in a computer, to diversify its busi-
ness.

There's no better time for Nvidia
to be searching for new markets,
says Jim McGregor, a chip analyst at
researcher In-Stat. "The next five to
10 years are just going to be phe-
nomenal. The plethora of (consum-
er electronic) devices you're going
to see — the opportunities — are
just going to be incredible. The
competition is going to be so fierce,
it's not even funny."

Corrections & Clarifications

USA TODAY is committed to accuracy. To
reach us, contact Reader Editor Brent Jones
at 1-800-872-7073 or e-mail accuracy@usa
today.com.

The 2005 contribution limit
for an individual retirement
account is \$4,000. The infor-
mation was incorrect in a col-
umn on 3B Friday.