Jen-Hsun Huang (MS ’92 Electrical Engineering)

Q&A NVIDIA CO-FOUNDER INVESTS IN THE NEXT GENERATION

The new Huang Engineering Center is named for alumnus and NVIDIA co-founder Jen-Hsun Huang, who, together with his wife Lori, made the building possible. Born in Taipei, Jen-Hsun immigrated to the United States at age 10. In high school, he discovered the magic of computers and after studying computer science and chip design at Oregon State University, where he met Lori, he moved to Silicon Valley to work at AMD and then LSI. While pursuing his career and helping to raise two children, he enrolled part-time in Stanford’s graduate electrical engineering program. Shortly after receiving his master’s degree, Jen-Hsun invested his drive and passion for computer design by co-founding NVIDIA with Chris Malachowsky and Curtis Priem. President and CEO of NVIDIA since its founding, he leads the world’s leading visual computing company. One day after the dedication of the Jen-Hsun Huang Engineering Center, he spoke with us about his boarding school experience in Kentucky, his love of learning and his big bets on NVIDIA and Stanford.

You’ve spoken of Stanford Engineering as a great entrepreneurial breeding ground. Cisco, Sun, Google, and Yahoo all have roots here. How does NVIDIA fit into this?

We are really the second generation of companies that were formed at Stanford. Most of our founders came from companies that were created at Stanford Sun, Silicon Graphics. And if you think about companies that were associated with Stanford, we’re still doing all kinds of research together, in parallel computing, in computational science areas, in computational fluid dynamics, in computational biology, astrophysics. There are all kinds of projects that we’re working on including the autonomous car. You can’t emphasize enough the extraordinary talent and vision of Stanford researchers. Working with them brings out the best in us.

You’ve built great personal wealth, and you’re a generous philanthropist. Why give it away?

I don’t give anything away. All of us want to make a difference. We all want to live a life of purpose and make a difference in the world, with a better future for ourselves and the people we care about. In my personal case, because I have greater resources than most, I can place more bets. My biggest bet is NVIDIA, where my heart, passion, and time are dedicated. We’re making a bet on people and with people who I believe will make the greatest impact on the world. I care deeply about computer technology and electronics, so what could be better than investing in Stanford? The way I think about it is I’m investing in the next generation, to help us and to inspire us to create even better and more useful technologies.

Tell me how you’d like to change the world.

You never really know what your legacy will be until you’re done writing the book. I’m a big believer in planning and having a strategic vision, but you also have to allow life and the future to happen to you. There are things I will do and be very thoughtful about, areas I want to invest in, people I want to invest in. Often the story will be written as a result of giving and doing your best. It often unfolds in a way that’s better than you could have planned. I don’t know what legacy or future I will help create, but I’m pretty sure if I dedicate myself to it, and keep working, it will be a far better story than I can imagine.

Looking back on your life, there seems to have been a fair number of so-called accidents, a big one being your arrival, with your brother, at the Oneida Baptist Institute, in eastern Kentucky. Can you tell me a little about this?

To get to Oneida, which is a boarding school, you drive through lots of hills, and mountains where they used to mine coal. There was one stoplight. Then there was one gas station, one grocery store and one post office all in the same building. If you blinked, you’d miss the whole town. There were about as many
residents as there were students, and there were 300 of us: 150 boys and 150 girls. We lived on campus all year, and everybody had chores. I don’t know why, but every kid smoked. I was the youngest, barely 10, I think. Everybody else was a young teen. My older brother worked at a tobacco farm. My chore was to clean all the bathrooms. So every day after school, I’d clean all the boys’ toilets. I always wished I could work on the tobacco farm.

Ten or twenty years from now, when new Stanford students are checking out their classes in the Huang Center, what would you like them to think of when they look up and see your name on the building?

I hope what they think of right away are the products they’re using that we helped create, inventions that are happening right now that are transforming computing and changing the world. I hope they think of us pioneering some of the most important technologies that they now take for granted. I hope they see our achievement. I hope we are a company they admire and love buying things from.

You worked full-time while you were earning your master’s in electrical engineering at Stanford.

I was working at AMD and LSI Logic. Lori and I were married by then. Then Spencer showed up, and a year and change later, Madison. When the kids came along, the number of classes I could take dwindled even further. But I never gave up on it because I loved going to school so much. I think this is a good example of my personality. I can be impatient about certain things, but infinitely patient about others. I plug away. It’s been almost 18 years now and I’m still at NVIDIA. I just plug away. I have a very long-term horizon. It took me eight years to finish my master’s at Stanford. That’s got to be a record. I remember being concerned that I was running up against the deadline, that the math I’d learned was going to be obsolete and they were going to kick me out and I’d have to start over.

Is it weird calling your former professors by their first names?

It’s totally weird. And every time they ask me a question, it still sounds like a quiz to me.

I hear NVIDIA was actually founded at a Denny’s in San Jose?

I think it was during Thanksgiving time, and Chris (Malachowsky), Curtis (Priem) and I wonderful friends were there. They were unsatisfied working at Sun and we wondered whether starting a graphics company would be a good idea. We brainstormed and fantasized about what kind of company it would be and the world we could help. It was fun.

So a Grand Slam breakfast, or just coffee and toast?

I forget what I had. But I’m pretty consistent, so I bet it was the Super Bird. It’s a great sandwich. It’s turkey, melted Swiss and tomato, in the middle of grilled sourdough. And bacon! Bacon’s the best part. It’s making my mouth water just seeing it in my mind. I usually ask them to modify it. I learned this from a taxi driver who used to come in every night when I worked the swing shift, 7 or 8 at night. He would ask for mayonnaise and mustard on the Super Bird. I tried it once and it was fabulous. So it was probably the Super Bird with mayo and mustard.

You’ve mentioned the value of learning from one’s mistakes. Can you tell me a mistake you’ve learned from?

There have been many career mistakes, company mistakes. When we first started the company we wanted to solve a problem that was quite large. Our thought was we wanted you to enjoy games. We wanted people to see it, hear it, interact with it. PCs didn’t have the technologies to make that happen. So we thought we would build an entire multimedia platform that did all those things inside a PC. The problem was we ended up competing against graphics, audio, peripheral companies. We were diluted across too many different areas. We learned it was better to do fewer things well than to do too many things even though it looked good on a Power Point slide.

From a management perspective, one of my best learning experiences was when I was 24 and a design center manager. I had some 30-odd engineers working for me. As a young manager, I was very possessive. I felt like we were one team. So when a young manager resigned, saying he wanted to work for another company, I was really upset. I felt betrayed and let down. Years later, I realized my huge mistake. The lesson I learned is we’re not a church or a prison. Not everybody gets to come in and not everybody has to stay. When people join us these days, I’m delighted. When they leave, I’m equally happy for them and gracious. The result is that’s made it possible for so many people to come back to our company.

You were a ping-pong phenom. You were in Sports Illustrated at the age of 14. You placed third in juniors’ doubles at 15. Do you still play?

I haven’t picked up a racket in decades. Not because I don’t fantasize about it. Most people don’t know this, but for a month or so, I would sneak out of the office around 7 at night for some private coaching in Palo Alto from the U.S. Olympic coach. I thought it would be a great way to keep in shape. But to my disappointment, I found out I was putting myself in harm’s way. When you’re 15, you’re agile, quicker, you’re everywhere at the same time, with incredible stamina and hand-eye coordination. I’m intensely competitive and when I was a teenager, I was able to achieve superhuman things. All that was imprinted in my memory. But I realized that I’m just human now. It was a huge disappointment. It was just too hard. So now I do what normal people do. I go to the gym.

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