
Name: _____

Date: _____

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TECHSHEETS.DEV

AAPI HERITAGE MONTH: TECH INNOVATORS

Jensen Huang

The Visionary Behind the AI Revolution

If you have ever played a 3D video game with stunning graphics, or used a smart Artificial Intelligence (AI) program like ChatGPT, you have directly experienced the brilliant work of **Jensen Huang**. Born in Tainan, Taiwan in 1963, Jensen's family immigrated to the United States when he was a child. He was a bright student who loved technology, eventually studying electrical engineering at Oregon State University and Stanford.

In 1993, Jensen and two of his friends met at a Denny's diner in California. Over a cup of coffee, they noticed that video games were getting more advanced, but standard computer brains (called CPUs) couldn't keep up with drawing complex 3D shapes fast enough. Right there in the diner, they decided to start a company to solve this problem. They named it **NVIDIA**.

Under Jensen's leadership (who is famous for always wearing his signature black leather jacket), NVIDIA invented the **GPU**, or Graphics Processing Unit. A normal CPU is like a genius professor who solves one very hard math problem at a time. A GPU, however, is like thousands of middle schoolers solving thousands of basic math problems all at the exact same time. This is called *parallel processing*, and it was perfect for drawing millions of pixels on a screen to create lifelike video games.

Decades later, scientists realized something incredible: the exact same "parallel processing" method used to draw video games is also the perfect way to train **Artificial Intelligence**. AI needs to process massive amounts of data all at once to learn how to write, paint, or drive a car. Because of Jensen Huang's early vision, NVIDIA's chips became the engine powering the modern AI revolution, making his company one of the most valuable in human history.

Part 1: Reading Comprehension

1. Where was Jensen Huang born, and where did he found his famous company?

2. What specific piece of computer hardware did NVIDIA invent?

3. According to the text, what is the main difference between how a CPU solves problems and how a GPU solves problems?

4. Why did GPUs suddenly become so important for Artificial Intelligence (AI) decades after they were invented?

Part 2: Critical Thinking

5. Jensen Huang and his friends came up with a multi-billion dollar idea while eating at a Denny's diner. What does this tell you about innovation, creativity, and where great ideas come from?

Part 3: The Parallel Processing Challenge

NVIDIA's secret weapon is **parallel processing**—doing many tasks at the exact same time instead of doing them one by one in a line. Let's see how much faster it really is!



The CPU Method (Serial)

1 Master Chef making pizzas.

Takes 5 minutes per pizza.



The GPU Method (Parallel)

10 Regular Chefs making pizzas.

Takes 10 minutes per pizza.

Scenario: A school orders 20 pizzas for a party.

Step A: Calculate the CPU Time.

The 1 Master Chef works alone, making one pizza after another. How long does it take him to make all 20 pizzas?

20 pizzas × 5 minutes = _____ minutes total

Step B: Calculate the GPU Time.

The 10 Regular Chefs all start working at the *exact same time*. Even though they are slower (10 mins per pizza), they can make 10 pizzas simultaneously. How long does it take them to make all 20 pizzas?

Step C: The AI Connection

Why do you think an AI program reading millions of pictures to learn what a "cat" looks like would prefer the GPU method over the CPU method?
