**Homework 5**

*Gregory Novikov, 1302*

**Summary**

This article discusses the end of Moore's Law and proposes software performance engineering as a solution. Increasing software performance is crucial for the development of computational technologies. Many programmers overlooked code efficiency, relying on processor advancements. Software performance engineering, including parallel programming, can optimize existing software by leveraging modern processors. However, this path requires effort, specialized skills, and overcoming traditional development approaches. Leading technology companies are already investing in software performance. Moore's Law doesn't imply imminent slowdown, but focusing on software performance engineering is vital for progress in AI and robotics.

**New facts:**

I just discovered that many programmers prioritized writing code quickly over optimizing its efficiency, relying on Moore's Law to improve performance. This led to the use of shortcuts and inefficient coding practices, resulting in significant levels of inefficiency. It's fascinating to realize the impact of such programming approaches on overall computing performance.

The information about the impact of inefficient coding practices can guide decision-makers in allocating resources and investing in software performance engineering. It highlights the value of prioritizing efficiency when developing new features, updating existing software, or replacing outdated systems.

I did not know that if Moore's Law had ended 20 years ago, today's processors would be roughly 1000 times less powerful. It's incredible to think about how much technological innovation we would have missed out on, including iPhones, voice assistants like Alexa, and movie-streaming services.