Name: Cao Tần Phi

Student ID: 20146513

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**Đề:**

1. There are different interpretations of artificial intelligence in different contexts. Please elaborate on the artificial intelligence in your eyes.

2. Artificial intelligence, machine learning and deep learning are three concepts often mentioned together. What is the relationship between them? What are the similarities and differences between the three terms?

3. After reading the artificial intelligence application scenarios in this chapter, please describe in detail a field of Al application and its scenarios in real life based on your own life experience.

4. Which chip is for deep neural networks and Ascend Al processors. Please brief these four major modules.

5. Based on your current knowledge and understanding, please elaborate on the development trends of artificial intelligence in the future in your view.

**Bài làm:**

1. In my opinion: AI is created by humans to perform many tasks. It can understand and learn things and work like a human's brain.

2. *Artificial Intelligence (AI), Machine Learning (ML), and Deep Learning (DL) are related but distinct concepts that are frequently used interchangeably.*

Artificial Intelligence (AI) is the overall concept of making machines that can perform tasks that typically require human intelligence, such as visual perception, speech recognition, decision-making, and language translation. AI can be achieved through various techniques, including rule-based systems, decision trees, and machine learning.

Machine Learning (ML) is a subset of AI that involves training algorithms using data, allowing them to make predictions or decisions without explicit programming. ML algorithms learn from the data and improve their accuracy over time. The goal of ML is to enable machines to automatically improve their performance with experience.

Deep Learning (DL) is a type of machine learning that uses algorithms inspired by the structure and function of the brain, called artificial neural networks. It uses multiple layers of nodes, each building upon the previous layer to perform a task. Deep learning algorithms can be applied to a wide range of applications, including image and speech recognition, natural language processing, and video analysis.

In summary, AI is the broader concept of making machines intelligent, ML is a specific approach to achieving AI through training algorithms, and DL is a specific type of ML that uses deep neural networks.

3. Based on my own life experience, AI has application on: Transportation, Sercurity, Education, Retail, Healthcare,…

4. There are several types of chips designed specifically for Deep Neural Networks (DNNs) and Ascend Al processors. Here are four major chips and modules in this space:

- Graphics Processing Units (GPUs): GPUs are commonly used for training deep neural networks due to their ability to perform many parallel computations. Nvidia's Tesla GPU is one of the most popular GPUs used for deep learning.

- Tensor Processing Units (TPUs): TPUs are specialized chips designed by Google specifically for accelerating machine learning workloads. TPUs are capable of performing matrix computations at high speed, making them well-suited for deep learning workloads.

- Field-Programmable Gate Arrays (FPGAs): FPGAs are reconfigurable chips that can be programmed to perform specific tasks, such as accelerating deep learning workloads. FPGAs are more flexible than TPUs or GPUs, but also require more time to program.

- Ascend Al processors: Ascend Al processors are Huawei's line of AI processors designed for edge computing and cloud computing. They are designed to deliver high performance and low power consumption for AI workloads. The Ascend Al processors support multiple deep learning frameworks, including TensorFlow, PyTorch, and Caffe, and are well-suited for real-time AI applications.

These are four of the major chips and modules for deep neural networks and Ascend Al processors. The choice of chip depends on the specific requirements of the deep learning application and the trade-off between performance, power consumption, and cost.

5. Theo quan điểm của em, sự phát triển của trí tuệ nhân tạo sẽ tiếp tục phát triển và định hình cách chúng ta sống, làm việc và tương tác với công nghệ. Một số xu hướng mà em mong đợi sẽ thấy trong tương lai bao gồm:

- Tăng cường áp dụng và tích hợp AI trong các ngành công nghiệp khác nhau, bao gồm chăm sóc sức khỏe, tài chính và vận tải.

- Những tiến bộ trong công nghệ xử lý ngôn ngữ tự nhiên (NLP) và tạo ngôn ngữ, cho phép tương tác giống con người hơn giữa người dùng và hệ thống AI.

- Tầm quan trọng ngày càng tăng của các cân nhắc về đạo đức và thiên vị trong AI, dẫn đến nỗ lực tăng cường để đảm bảo rằng các hệ thống AI được phát triển và sử dụng một cách có trách nhiệm và có đạo đức.

- Vai trò ngày càng tăng của AI trong việc hỗ trợ các công nghệ mới và sáng tạo, chẳng hạn như xe tự hành, thành phố thông minh và Internet vạn vật (IoT).