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**DEPARTMENT: COMPUTER SCIENCE**

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### **Question**

Pick any three that interests you more of the 15 AI areas, research on it and get at least five real live applications with the company and their website.

#### **Cognitive science applications**

1. Expert system
2. Machine learning
3. Learning system
4. Fuzzy logic
5. Genetic algorithm
6. Neural networks
7. Intelligent agent

#### **Robotics applications**

1. Visual perception
2. Tactility
3. Dexterity
4. Locomotion
5. Navigation

#### **Neural interface applications**

1. Natural language

2. Speech recognition
3. Multisensory interface
4. Visual reality

## **Answer**

Focusing on Machine Learning, Neural Networks, and Speech Recognition. Below are their information on real-life applications, including the companies involved and their websites.

### **Machine Learning**

#### **1. Google** (Alphabet Inc.)

- Application: Search algorithms, advertising, and personalized content recommendations.

- Website: [Google](<https://www.google.com>)

#### **2. Amazon**

- Application: Product recommendations, fraud detection, and supply chain optimization.

- Website: [Amazon](<https://www.amazon.com>)

#### **3. Netflix**

- Application: Content recommendation and personalization.

- Website: [Netflix](<https://www.netflix.com>)

#### **4. IBM**

- Application: Watson AI for healthcare diagnostics and business analytics.

- Website: [IBM Watson](https://www.ibm.com/watson)

## 5. **Tesla**

- Application: Autopilot and self-driving technology.
- Website: [Tesla](https://www.tesla.com)

## **Neural Networks**

### 1. **DeepMind** (Alphabet Inc.)

- Application: AlphaGo, protein folding predictions with AlphaFold.
- Website: [DeepMind](https://www.deepmind.com)

### 2. **OpenAI**

- Application: Language models like GPT-4, Codex for coding assistance.
- Website: [OpenAI](https://www.openai.com)

### 3. **NVIDIA**

- Application: GPU-accelerated deep learning and AI research.
- Website: [NVIDIA](https://www.nvidia.com)

### 4. **Facebook** (Meta Platforms Inc.)

- Application: Image and video recognition, content moderation.
- Website: [Meta](https://www.meta.com)

### 5. **Microsoft**

- Application: Azure AI for cloud-based neural network services.

- Website: [Microsoft Azure AI](https://azure.microsoft.com/en-us/services/machine-learning/)

## **Speech Recognition**

### **1. Apple**

- Application: Siri voice assistant.
- Website: [Apple](https://www.apple.com)

### **2. Google**

- Application: Google Assistant, Google Voice Search.
- Website: [Google](https://www.google.com)

### **3. Amazon**

- Application: Alexa voice assistant.
- Website: [Amazon](https://www.amazon.com)

### **4. Microsoft**

- Application: Cortana, Azure Cognitive Services for speech-to-text.
- Website: [Microsoft](https://www.microsoft.com)

### **5. Nuance Communications**

- Application: Dragon NaturallySpeaking for dictation and transcription.
- Website: [Nuance](https://www.nuance.com)

These applications illustrate how AI technologies are integrated into everyday products and services, driving innovation and efficiency across various industries.