Articles links:

1. <https://thesequence.substack.com/p/thesequence-scope-the-emerging-market>

ML Research  
Advancing Reinforcement Learning in Gaming  
Microsoft Research published three different papers detailing advancements in reinforcement learning for gaming scenarios

A Better Benchmark for AI Assistants  
Researchers from ElementAI and Stanford University published a paper demonstrating that the market needs a better benchmark and methodology for language user interfaces

Fooling Facial Recognition Systems  
Researchers from McAfee published a paper proposing a variation of generative adversarial neural networks (GANs) known as CycleGAN that can fool a modern face-recognition algorithm into seeing someone who isn’t there

1. <https://thesequence.substack.com/p/this-week-in-ai-openai-launches-its>

OpenAI has been at the center of some of the biggest advancements in artificial intelligence (AI) in recent years. Created by industry luminaries such as Elon Musk and Sam Altman, OpenAI started as a non-profit organization with a focus on advancing AI research. After Altman took over as CEO last year, OpenAI transitioned to a capped profit structure and attracted a $1 billion investment from Microsoft. The next step in the evolution of OpenAI seems to be to build up its commercial muscle and that’s what they seem to be doing.

Earlier this week, OpenAI unveiled an API product that exposes endpoints for some of its most successful language models including the controversial GPT-3. The API is available for Beta but already has drawn interest from big technology companies such as Google and Microsoft. The current offer is mostly focused on text-generation but we can expect it to expand from there. OpenAI’s step has been seen as a controversial move. Personally, I like the approach as it might allow startups to have access to the kind of AI models that only big corporate labs can create these days.

**Summarizing Long Texts**  
Google Research published a paper introducing PEGASUS, a transformer-based model for text summarization.

**AI Agents Playing Diplomacy**  
DeepMind published a paper proposing a method to allow reinforcement learning agents to develop cooperative skills by playing the Diplomacy game.

**Cross-Language Transfer Learning**  
Microsoft Researchers published a paper proposing a method for transfer knowledge across different languages.

**Uber Neuropod**Uber open sourced Neuropod, a framework that provides a common interface for executing deep learning models built using different frameworks.

1. <https://thesequence.substack.com/p/-training-data-labeling-is-one-of>

Building high quality labeled training datasets is one of the biggest roadblocks in machine learning projects. Labeling training data is not only resource-intensive but really hard to automate at scale. It is easy to underestimate the complexity of assembling large-scale training datasets if we think about it just as a data collection exercise. Instead, the reality is that training datasets have their own lifecycle that includes capabilities such as filtering, searching and judging the effectiveness of datasets when applied in specific models. Not surprisingly, data labeling is carving its own space as one of the most important markets in the machine learning space.

**English-Language Alexa Learns to Speak Spanish Using the Same Voice**

Researchers from Amazon published a blog post detailing a Neural text-to-speech teaching Alexa to fluently speak Spanish and English using the same voice [->read more on Amazon Research blog](https://www.amazon.science/blog/english-language-alexa-voice-learns-to-speak-spanish)

**Reasoning Over Tabular Data**

Google Research published a paper outlining a model that is able to learn relationships between records in tabular structures and express them in natural language [->read more on Google Research blog](https://ai.googleblog.com/2021/01/learning-to-reason-over-tables-from.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+blogspot%2FgJZg+%28Google+AI+Blog%29)

**Visual Model-Based Reinforcement Learning**

Google Research published a paper discussing different design trade-offs in model based reinforcement learning methods applied to image analysis [->read more on Google Research blog](https://ai.googleblog.com/2021/02/evaluating-design-trade-offs-in-visual.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+blogspot%2FgJZg+%28Google+AI+Blog%29)