

Twitter Thread by Oliver Cameron



Oliver Cameron

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AI is changing everything, and it's not just ChatGPT or self-driving cars.

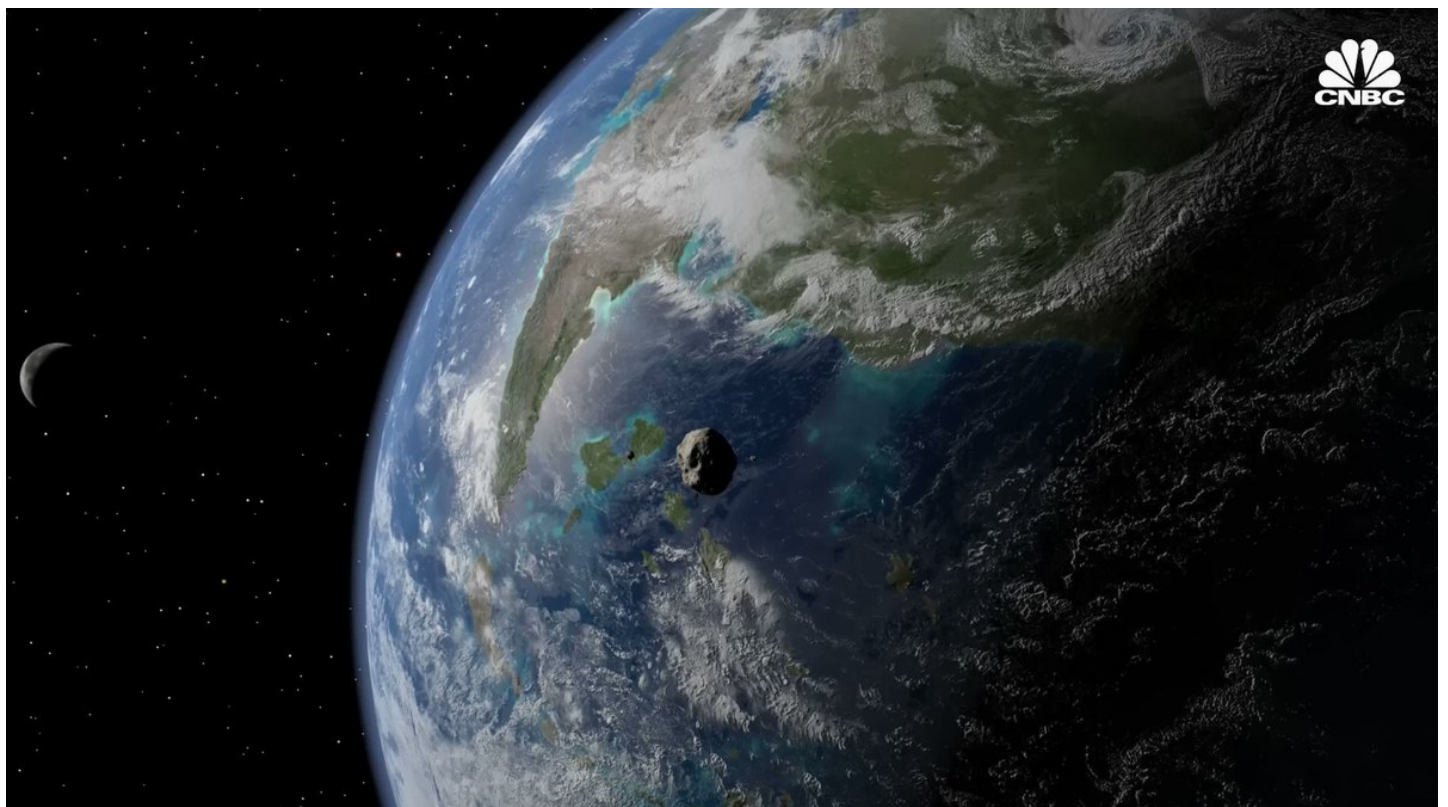
You'd be surprised at just how broadly AI is being applied across tons of industries.

I've now invested in 50 AI startups, and here are some recent investments using AI in fascinating applications ■

■■ [@ForgeAstro](#) is building robots to autonomously mine asteroids, returning precious materials to Earth.

Why? One asteroid can contain up to \$10,000 quadrillion(!) of rare material.

This is enabled by computer vision, affordable rocket rides, and small sat maturation.



■ @WOMBO makes creating images with AI easy, fun, and useful.

With 130+ million downloads on iOS and Android and 2 billion images created, they are likely the largest consumer AI startup around.

My 8-year-old uses @WOMBO like I did Photoshop way back when. So fun.

The first of these is the fact that the system is not in a steady state. The system is in a state of flux, and the variables are changing. This is a dynamic system, and the variables are interdependent. The second is the fact that the system is not linear. The relationships between the variables are non-linear, and the system is subject to feedback loops. The third is the fact that the system is not deterministic. The system is subject to random fluctuations, and the future is uncertain. The fourth is the fact that the system is not isolated. The system is open to the environment, and the environment can influence the system. The fifth is the fact that the system is not simple. The system is complex, and the relationships between the variables are intricate. The sixth is the fact that the system is not static. The system is in a state of constant change, and the variables are always in flux. The seventh is the fact that the system is not homogeneous. The system is composed of different parts, and the parts are not identical. The eighth is the fact that the system is not uniform. The system is not the same everywhere, and the variables are not the same in all parts. The ninth is the fact that the system is not continuous. The system is composed of discrete parts, and the variables are not continuous. The tenth is the fact that the system is not perfect. The system is subject to errors, and the results are not perfect.

■ @BiofireUSA protects kids from guns using AI.

@BiofireUSA is building a handgun that only fires for the authenticated owner, ensuring that kids don't stumble upon a gun and tragically lose their life.

Imagine incredibly low-latency and accurate FaceID-like auth for guns.



■ What if video editing was reinvented with AI? Enter @runwayml, which enables complex videos to be created with AI in minutes vs. days.

Not only does @runwayml speed up creation, they also enable wild ideas that exist only in your mind to come to life.

<https://t.co/lkqNeCKrfG>

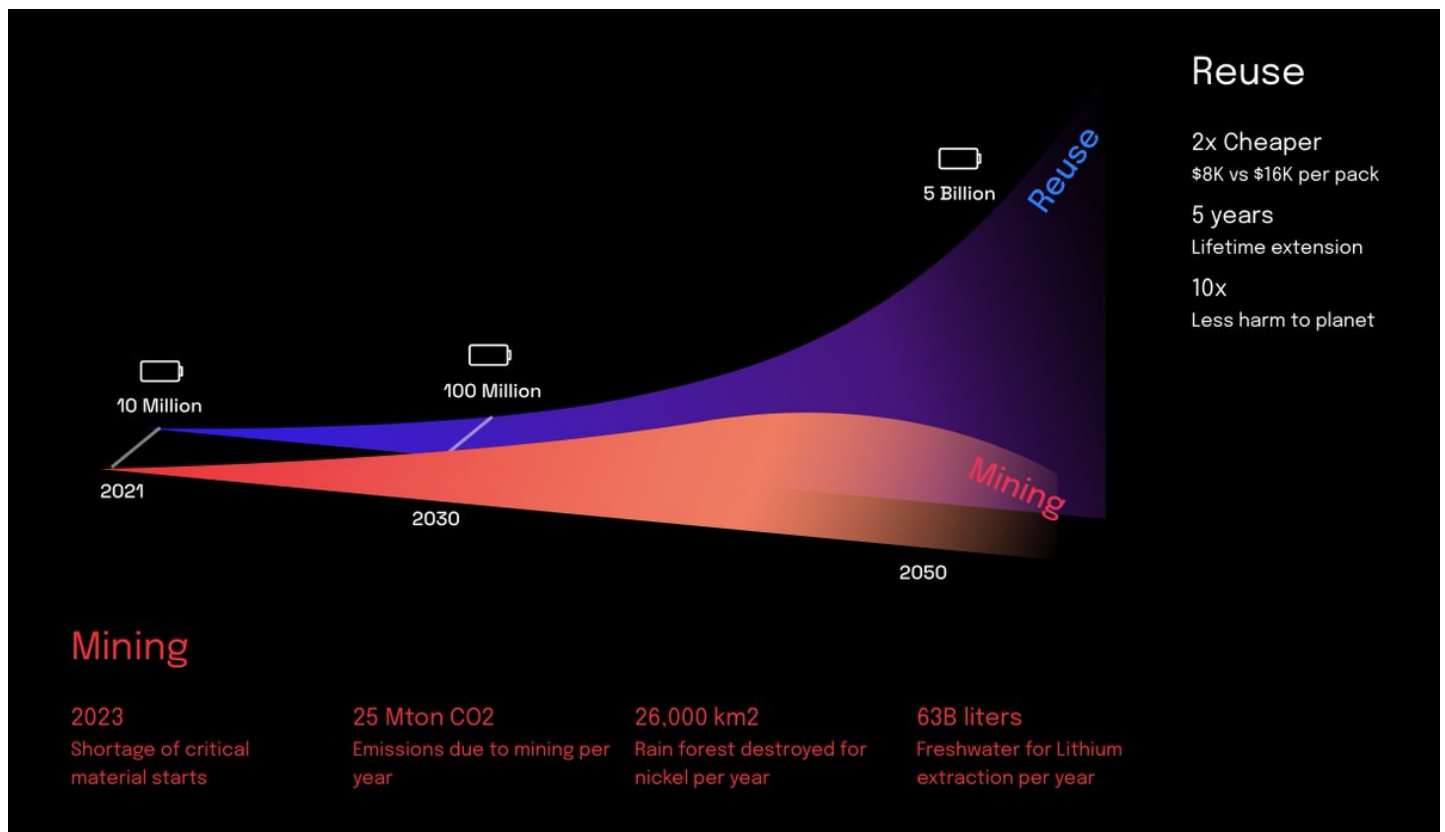
Prompt: Home Alone. But as the opening credits of White Lotus season two. #MadeWithRunway
pic.twitter.com/CJA3Ry3zMw

— Jamie (@umpherj) December 19, 2022

■ <https://t.co/50DyEI0brZ> automates the disassembly of EV batteries with AI.

We cannot rely on mining lithium to fuel EV expansion, and human disassembly of EV batteries is dangerous and slow.

The solution: autonomous robots disassembling batteries, powered by machine vision!



■ To efficiently scale AI, Geoffrey Hinton believes we need an entirely new computer—likely neuromorphic.

@Rain AI is working on precisely that, pioneering a neuromorphic processing unit (NPU) that's 10,000x more efficient, delivering what comes after the GPU & deep learning.

A new type of computer

- Computers were designed to faithfully implement instructions because it was assumed that the only way to get a general purpose computer to solve a specific task was to tell it exactly what to do.
- This is no longer true, but the research community has been slow to realize the implications of deep learning for how computers are built.
 - We will see a completely new type of computer.
 - It will not replace digital computers.

■■ <https://t.co/CJmiEnOqiV> transforms existing earth-moving machines into fully autonomous machines with AI.

How much more could we build on our planet if we had a low-cost, around-the-clock workforce of robot earth-moving


machines? A lot!



■ ■ @StrongCompute is speeding up training ML models by 10x-1,000x.

The amount of unproductive time in ML today is staggering, which is why @StrongCompute is growing so fast.

One customer: “Strong Compute took our core algorithm training from 30 hours to 5 minutes.”



MTAILOR

“from 30 hours to 5 minutes”

Strong Compute took our core algorithm training from 30 hours to 5 minutes, training hundreds of terabytes of data.

Deep learning engineers are probably the most precious resource on this planet, and Strong Compute has enabled ours to be 10x more productive.

Iteration and experimentation time is the most important lever for ML productivity, and we were lost without Strong Compute.

- Miles Penn, CEO of MTailor

■ We know AI can dramatically improve detecting health issues in medical imaging, and @md_ai is where that AI is being built.

With [@md_ai](#), you can create or browse the best medical datasets in the world, and then train and deploy state-of-the-art medical ML models.

The Cancer Genome Atlas - Lung Adenocarcinoma

PUBLIC

CT


PET


Chest


From The Cancer Imaging Archive (TCIA): the Cancer Genome Atlas Lung Adenocarcinoma data collection is part of a larger effort to build a research community focused on connecting cancer phenotypes to genotypes by providing clinical images matched to subjects from The Cancer Genome Atlas (TCGA). Clinical, genetic, and pathological data resides in the Genomic Data Commons (GDC) Data Portal while the radiological data is stored on The Cancer Imaging Archive.

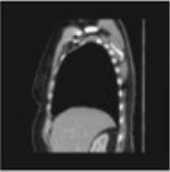
DATASET	DATASET TYPE	# STUDIES	# SERIES	# IMAGES
Dataset	DICOM	152	625	48,931

SERIES THUMBNAILS









+ 621 more...

Users

MD.ai

A

G

Labels


Nodule

Emphysema

■ [@PolymathRobots](#) has built true plug-and-play AI for industrial vehicles.

Think about enabling thousands of vehicles in rail yards, mines, airports, and fields to drive by themselves.

[@PolymathRobots's](#) key insight is reducing integration time with sim, and it's working.



■ @opalcamera has built a beautiful webcam augmented with AI, producing DSLR-like image quality for only \$300.

They tightly integrated a 4K mirrorless lens, beamforming mics, and computer vision to deliver the best webcam out there.



■ @twelve_labs has developed the world's best video search, powered by state-of-the-art AI.

Imagine being able to search millions of videos with complex questions, with AI pin-pointing non-obvious but relevant scenes.

Basically, useful video search is finally here.

Amy and her team discussing marketing strategies for
the new product line in a conference room



Thanks to these startups and others, the future will be awesome. If you're building something similarly great, please DM me.

Here are a bunch more super cool AI startups to check out.

<https://t.co/ql1nu8HMNV>

3 years ago, I started angel investing in machine learning and autonomous robot startups. I'm now 35 startups in, learning a lot, and having a blast.

The future is going to be incredible. Here are just a few of the startups making it happen \U0001f447

— Oliver Cameron (@olivercameron) December 24, 2021