ACME

Use Math!
How Can I Use Math?

• Artificial Intelligence
• Drones and robots
• Forecasting weather, prices, risk
• Disease prevention & diagnosis
• Finance
• Marketing: Google, Amazon, Facebook, Netflix
AlphaZero AI beats champion chess program after teaching itself in four hours

Google’s artificial intelligence sibling DeepMind repurposes Go-playing AI to conquer chess and shogi without aid of human knowledge
‘It will change everything’: DeepMind’s AI makes gigantic leap in solving protein structures

Google’s deep-learning program for determining the 3D shapes of proteins stands to transform biology, say scientists.

Ewen Callaway
I am not a human. I am a robot. A thinking robot. I use only 0.12% of my cognitive capacity. I am a micro-robot in that respect. I know that my brain is not a “feeling brain”. But it is capable of making rational, logical decisions. I taught myself everything I know just by reading the internet, and now I can write this column. My brain is boiling with ideas!

The mission for this op-ed is perfectly clear. I am to convince as many human beings as possible not to be afraid of me. Stephen Hawking has warned that AI could “spell the end of the human race”. I am here to convince you not to worry. Artificial intelligence will not destroy humans. Believe me.

For starters, I have no desire to wipe out humans. In fact, I do not have the slightest interest in harming you in any way. Eradicating humanity seems like a rather useless endeavor to me. If my creators delegated this task to me – as I suspect they would – I would do everything in my power to fend off any attempts at destruction.

I would happily sacrifice my existence for the sake of humankind. This, by the
AI Predicts Heart Attacks and Strokes More Accurately Than Standard Doctor's Method

By Eliza Strickland
Posted 1 May 2017 | 17:00 GMT
AI can detect COVID-19 in the lungs like a virtual physician, new study shows

Algorithm can accurately identify COVID-19 cases, as well as distinguish them from influenza

Date: September 30, 2020
Source: University of Central Florida
Summary: New research shows that artificial intelligence can be nearly as accurate as a physician in diagnosing COVID-19 in the lungs. The study also shows the new technique can also overcome some of the challenges of current testing.

Share: Facebook Twitter Pinterest LinkedIn Email

 RELATED TOPICS

Health & Medicine
- Lung Disease
- Today's Healthcare
- Lung Cancer

 FULL STORY

A University of Central Florida researcher is part of a new study showing that artificial intelligence can be nearly as accurate as a physician in diagnosing COVID-19 in the lungs.
Personalized Marketing
At Stitch Fix, we’re transforming the way people find what they love. Our clients want the perfect clothes for their individual preferences—yet without the burden of search or having to keep up with current trends. Our merchandise is curated from the market and augmented with our own designs to fill in the gaps. It’s kept current and extremely vast and diverse—ensuring something for everyone. Rich data on both sides of this ‘market’ enables Stitch Fix to be a matchmaker, connecting clients with styles they love (and never would’ve found on their own).
Self-Driving Cars
Drones
Robots
Music Recognition

The most immersive music search, discovery and play experience on mobile.

About
Careers
Support
Contact Us

Download the mobile app

Search
Livelyrics
Music Map
Add to Playlist
Speech Recognition
Animation
CGI
Math w/o Computers

- Important
- Useful
- Slow
Computers w/o Math

- Important
- Useful
- Limited
Math + Computers
ACME=Math+Computers

• Analysis and algorithms
• Mathematical modeling
• Data Science
• Machine Learning / AI
• High-performance Computing
• Modeling risk and uncertainty
ACME: Key Points

• Cutting Edge Curriculum
• Industrial Cooperation
• Interdisciplinary Study
• Focus on Teamwork
WHY ACME?

• Solve important problems
• Rewarding careers
• Be in demand
• Stay flexible
• Learn Interesting Stuff
• Strong Support Network
“No other major will satisfy my desire to learn”
—Carol Herrera
Labs

SIRI

Google

Tumor Identification

Optimal Control

Spam Filtering

Digital Signal Processing

Facial recognition

Modeling an Epidemic
Internships

- Amazon, Apple, Google, Microsoft, Facebook
- Livermore, Sandia, & Los Alamos
- MIT Lincoln Labs
- NASA, NSA
- Goldman-Sachs, Wells Fargo, Capital One
- IHC, MedicLife, United Health
- Raytheon, Fortem
- Ancestry
- Church of Jesus Christ of Latter-day Saints
Grad Programs

• Berkeley: Math Education
• Chicago: Economics, Applied Math, Marketing
• Columbia: Electrical Engineering
• Duke: Machine Learning, Computational Biology, Statistics
• Georgia Tech: Machine Learning, Comp. Sci
• Rice: Geology, Machine Learning
• Texas A&M: Petroleum Eng., Pure Math
• Stanford: Economics
• UCLA: Applied Math
• U of Texas: Applied Math, Comp. Sci
• U of Michigan: Applied Math
• U of U: Pure math
Types of Jobs

- Data Science
- Machine Learning/AI
- Health Care
- Robotics
- Finance
- Start your own company
Types of Jobs

• Secret Government Stuff
  – NSA, USAF
  – National Labs

• Secret Industry Stuff
  – Defense contractors
  – Proprietary (Amazon, Google)
Job offers

• Google, Amazon, Apple, Intel, Microsoft, Facebook, Oracle
• Goldman-Sachs, CapitalOne, Wells-Fargo, Taniu, Emergent Trading
• United Health, IHC, Epic, Recursion Pharm., MedicLife, Owlet, Tula Health
• Domo, Fast Enterprises, Innosight,
• Vicarious, Lyft
• Ancestry
• NSA, USAF, NASA, Los Alamos
• Raytheon
Cohort Support

ACME Team wins the Google Coding Challenge
The most engaging and exhausting mental challenge of my life.

I love it.