MARCH 2022 | ISSUE #60

AI:10

GET INSIGHTS ON AI UNDER 10 MINUTES

BROUGHT TO YOU BY

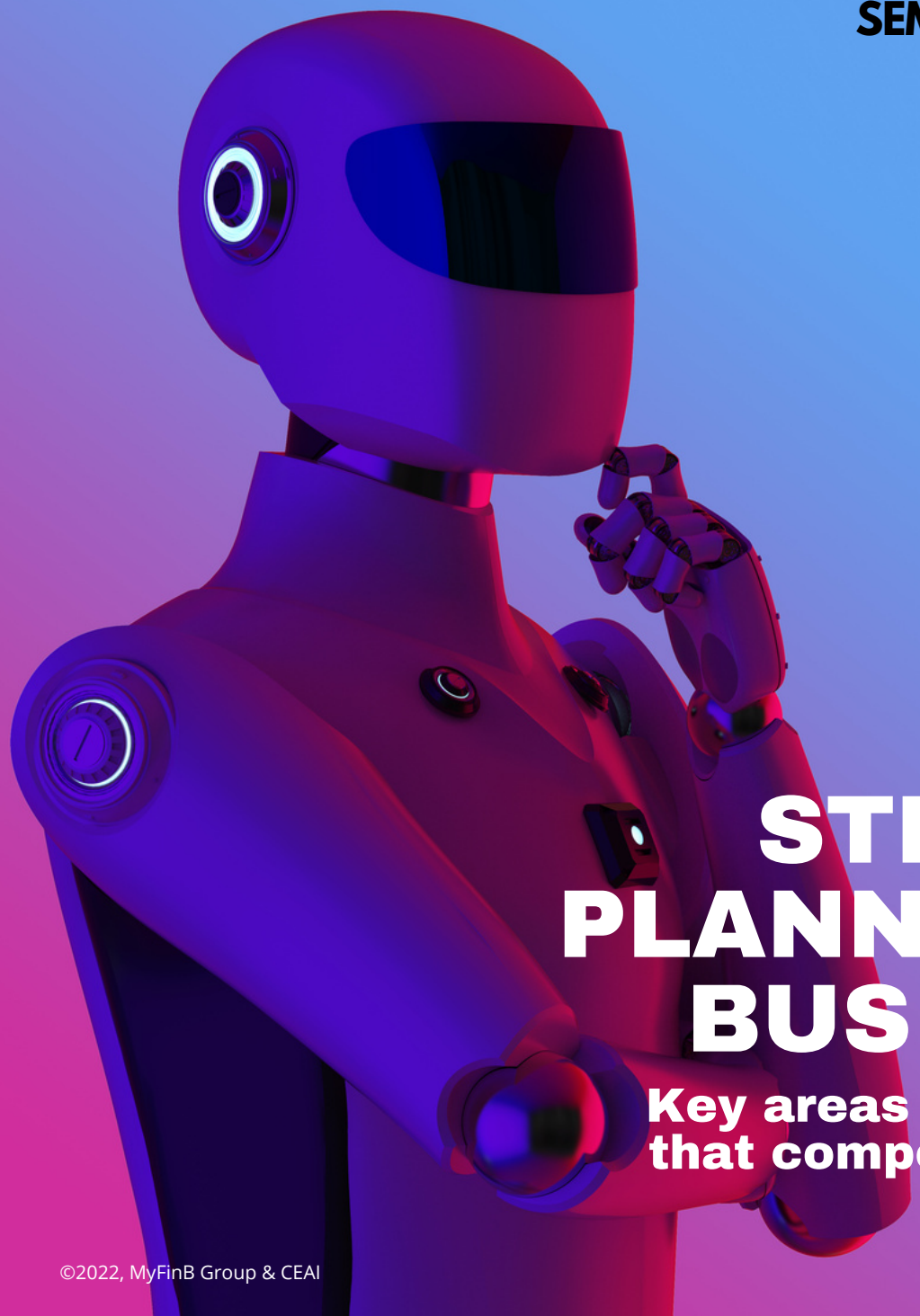
CE.A.I. Centre of AI Innovation

MYFINB.COM

IN PARTNERSHIP WITH

GLOBAL CHAMBER

AI WORLD SUMMIT
WHERE INNOVATORS & DISRUPTORS MEET TO CHALLENGE LIMITS
Powered by MyFinB.com



WHAT'S HOT

SEMANTIC TECHNOLOGY TRENDS IN 2022

HEADLINE NEWS IN A FLASH

- DeepRoute.ai to Integrate NVIDIA DRIVE Hyperion Into L4 Autonomous Driving Solutions
- Simple electrical circuit learns on its own—with no help from a computer
- Alexa for Animals: AI Is Teaching Us How Creatures Communicate
- How artificial intelligence could help fight Australia's bushfires
- AI chip startups pull in funding as they navigate supply constraints
- AI System Automatically Tracks, Fights Toxicity In Online Games

INDUSTRY FOCUS

STRATEGIC PLANNING FOR BUSINESSES

Key areas and how AI gives that competitive advantage

SEMANTIC TECHNOLOGY TRENDS IN 2022

Semantic technology trends are expanding well beyond an interesting, more advanced search engine. Besides providing scientists with a more functional search engine, semantic technology is now being used to improve artificial intelligence and machine learning. Semantic technology uses a variety of tools and methods designed to add "meaning" to a computer's understanding of data.

When asked a question, rather than simply searching for keywords, semantic technologies will explore a wide variety of resources for topics, concepts, and relationships. In the financial and science industries, companies have begun to semantically "enrich" content, processing complex data from a variety of sources.

THE SEMANTIC WEB

The birth year of the semantic web is considered by many to be 2021. Use of the semantic web will increase significantly over the next few years, particularly in the science and medical communities. This subdivision of the world wide web translates internet data into machine-readable data. It uses technologies like RDF (Resource Description Framework) and OWL (Web Ontology Language).

Websites can expose their semantics by embedding RDF statements within their webpages. There are a variety of ways to accomplish this:

- RDFa
- RDF-XML
- RDF-JSON
- JSON-LD
- Microdata

There have been predictions of a Web 3.0, which would incorporate semantic technology, but it doesn't exist yet, and may be some time in coming.

SEMANTIC TECHNOLOGY, NLP, AND ARTIFICIAL INTELLIGENCE

In 2018, Microsoft purchased Semantic Machines, which combined semantics technology with NLP machine learning algorithms to provide context for conversations with virtual assistants and chatbots.

Since that time, Microsoft has applied the techniques and methods taken from Semantic Machines to their virtual assistant, Cortana. More specifically, Cortana's Scheduler, which is used to negotiate meeting times.

It allows users to schedule meetings by speaking normally, such as, "Find a time when Kevin and I can meet for coffee next week." Cortana's Scheduler searches for attendee availability and communicates back-and-forth using email. When all is organized, it sends out calendar invitations. Cortana's Scheduler can also be used to reschedule or cancel meetings.

KNOWLEDGE GRAPHS, RELATIONSHIPS, AND SEMANTIC TECHNOLOGY

A knowledge graph (also referred to as a semantic network) is a symbolic representation of real-world objects and events (things, concepts, activities) and their relationships. When a knowledge graph is semantically enriched, additional meaning has been associated with items on the graph.

For example, a node labeled "RPA" might have little meaning by itself. To a software developer, however, it might be recognized as "robotic process automation," describing software that automatically performs certain administrative tasks.

By adding meaning to the node's name, it can be assigned relationships with other software and automated services.

A knowledge graph will label the RPA node as software. By aligning the RPA node to a software ontology, a computer begins to understand the object in context with other types of nodes that are also inside the knowledge graph.

In 2018, Ontotext developed an expert knowledge graph (commissioned by NuMedii) using concepts from genomics, disease conditions, drug products, scientific literature, etc. The massive integration and semantic interlinking of medical data helped NuMedii discover knowledge hidden away in documents and find new patterns and correlations. They were able to access information that might otherwise have been inaccessible and forgotten.

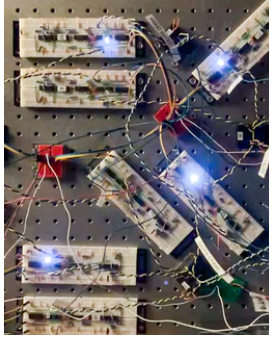
WHAT SEMANTIC TECHNOLOGY TRENDS ARE COMING?

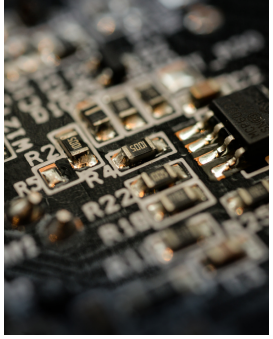
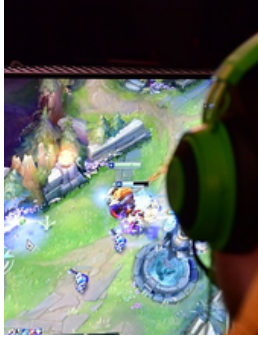
Scientific and medical research will continue to lead the way in using semantic technology as a powerful search engine. While there is a great deal of research and publishing in the scientific and medical communities, few of the articles published are read.

Additionally, semantic technologies support the continuing evolution of artificial intelligence, especially in combination with deep learning and natural language processing. Semantic technology can supply background knowledge for AI systems, allowing them to provide more targeted responses.

Expect chatbots and virtual assistants to sound more and more human.

Source: dataversity

HEALDLINE NEWS IN A FLASH

DEEPROUTE.AI TO INTEGRATE NVIDIA DRIVE HYPERION INTO L4 AUTONOMOUS DRIVING SOLUTIONS

DeepRoute.ai, an autonomous driving technology company, will integrate the NVIDIA DRIVE Hyperion AV computing architecture into its Level 4 autonomous driving solutions. With this upgrade, DeepRoute-Driver 2.0 will meet automotive-grade requirements and advance the company's plans to bring production-ready solutions to the consumer market. Road testing will start during Q2 of 2022, while mass production is expected to begin in Q1 of 2023. This integration will enable DeepRoute.ai to conform to automotive-grade standards faster by incorporating redundancy and diversity into its solution. The company's proprietary inference engine and algorithm superiority allows for energy-efficient computing performance – a major advantage for optimizing mileage range and workloads, and reducing vehicle design and validation costs.

Source: pandaily

SIMPLE ELECTRICAL CIRCUIT LEARNS ON ITS OWN—WITH NO HELP FROM A COMPUTER

A simple electrical circuit has learned to recognize flowers based on their petal size. That may seem trivial compared with artificial intelligence (AI) systems that recognize faces in a crowd, transcribe spoken words into text, and perform other astounding feats. However, the tiny circuit outshines conventional machine learning systems in one key way: It teaches itself without any help from a computer—akin to a living brain. The result demonstrates one way to avoid the massive amount of computation typically required to tune an AI system, an issue that could become more of a roadblock as such programs grow increasingly complex.

Source: science.org

ALEXA FOR ANIMALS: AI IS TEACHING US HOW CREATURES COMMUNICATE

New kinds of artificial intelligence are enabling scientists to better understand the sounds of the animal world, from whale songs to mouse squeaks. Researchers are using AI to parse the "speech" of animals, enabling scientists to create systems that, for example, detect and monitor whale songs to alert nearby ships so they can avoid collisions. It may not yet quite be able to talk to the animals the way the century-old children's-book character could, but this application of what is known as "deep learning" is helping conservationists protect animals, as well as potentially bridging the gap between human and nonhuman intelligences.

Source: wsj

HOW AI COULD HELP FIGHT AUSTRALIA'S BUSHFIRES

Artificial intelligence from the United States could help Australia fight catastrophic bushfires. The advanced technology was born in the wake of the last horror fire season in 2019-20, and while it's in a trial phase now it could soon be used nationwide. It's been developed in California by climate technology company Salo Sciences and brought to Australia with $70 million bankrolled by Andrew "Twiggy" Forest's Minderoo foundation. AI processes the information from satellite images, converting it to high quality maps showing where there's fire risk. RFS Deputy Commissioner Peter McKechnie said the tech will allow experts to better understand the fuels that ultimately drive fires.

Source: 9news

AI CHIP STARTUPS PULL IN FUNDING AS THEY NAVIGATE SUPPLY CONSTRAINTS

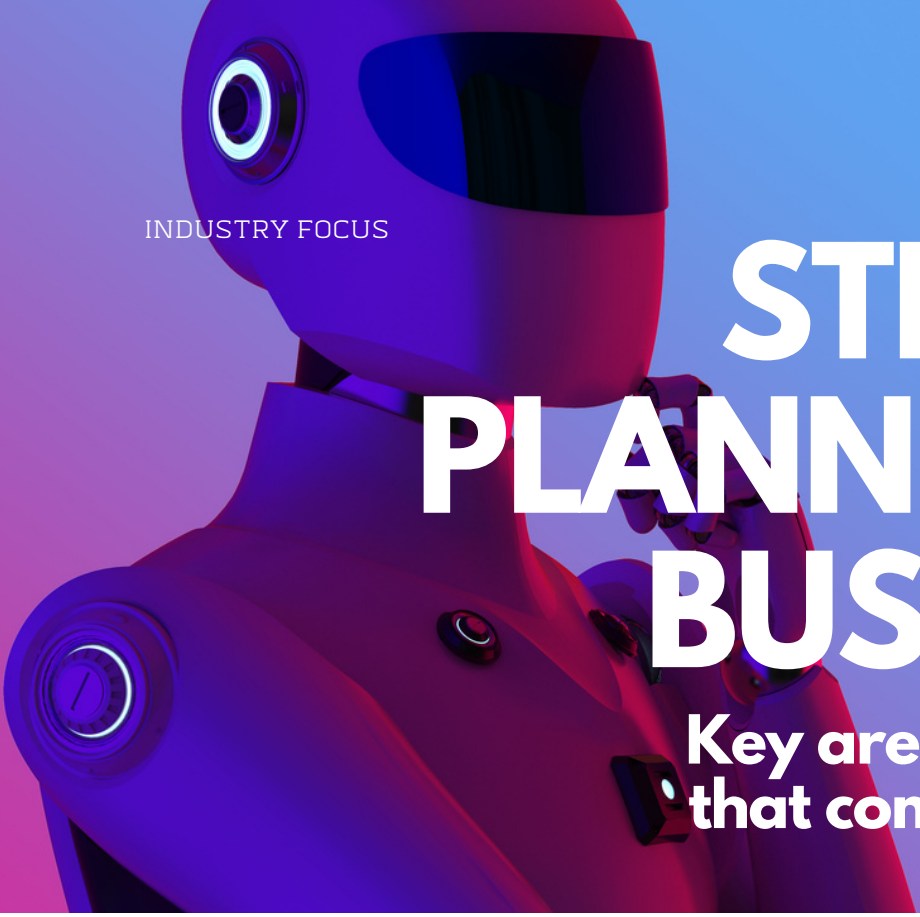
Investors are funnelling billions of dollars into startups that make chips designed for artificial intelligence applications, which have largely avoided the supply chain constraints and backlogs faced by larger chip makers, startup executives, investors and industry analysts say. AI chip startups make processors designed to power natural language processing, deep learning and other AI techniques. They also tend to target specific applications in areas such as autonomous vehicles. Together, these startups secured an estimated $9.9bn in venture capital across 170 deals last year, more than triple the total funding for AI chip startups in 2020, according to market-research firm PitchBook. They include global startups building AI chips, intelligent sensors and devices, and algorithms designed to optimise AI and machine learning models, the firm said.

Source: techregister

AI SYSTEM AUTOMATICALLY TRACKS, FIGHTS TOXICITY IN ONLINE GAMES

The aforementioned AI system is called GGWP (short for "good game, well played", which is a popular gaming acronym). According to Yahoo, it works by collecting and organizing data of player behaviors in any game, which will help developers mix both real-person and automated review to more effectively combat toxicity in their online multiplayer games. Aside from that, the AI system is also designed to give players reputation scores. These scores are a product of an analysis of an individual player's behavior in reported matches, which combined with an "understanding" of the game's culture can also help developers warn people whether they're being too toxic (ratings dip) or just outright ban them if they're not careful with their antics. But since each competitive online game is different, the makers of GGWP are ensuring that the system is fully customizable to tailor-fit any game's culture.

Source: techtimes



INDUSTRY FOCUS

STRATEGIC PLANNING FOR BUSINESSES

Key areas and how AI gives that competitive advantage

At CEAI, we continously explore ways of how strategic planning can be expeditiously carried out using technologies.

BUT WHAT EXACTLY DOES STRATEGIC PLANNING ENTAIL? HOW DOES AI TECHNOLOGIES FIT INTO ALL THESE?

Strategic planning is the art of creating specific business strategies, implementing them, and evaluating the results of executing the plan, in regard to a company's overall long-term goals or desires. It is a concept that focuses on integrating various departments (such as accounting and finance, marketing, and human resources) within a company to accomplish its strategic goals.

The thing about strategic planning is that it involves a process that requires considerable thought and planning on the part of a company's upper-level management. Before settling on a plan of action and then determining how to strategically implement it, executives may consider many possible options. In the end, a company's management will, hopefully, settle on a strategy that is most likely to produce positive results (usually defined as improving the company's bottom line) and that can be executed in a cost-efficient manner with a high likelihood of success, while avoiding undue financial risk.

WHY IS STRATEGIC PLANNING NECESSARY FOR ANY ORGANISATION?

The volatility of the business environment causes many firms to adopt reactive strategies rather than proactive ones. However, reactive strategies or "fire-fighting", are typically only viable for the short-term, even though they may require spending a significant amount of resources and time to execute. Strategic planning helps firms prepare proactively and address issues with a more long-term view. They enable a company to initiate influence instead of just responding to situations.

Among the primary benefits derived from strategic planning are the following:

1. Helps formulate better strategies using a logical, systematic approach

This is often the most important benefit. Some studies show that the strategic planning process itself makes a significant contribution to improving a company's overall performance, regardless of the success of a specific strategy.

2. Enhanced communication between employers and employees

Communication is crucial to the success of the strategic planning process. It is initiated through participation and dialogue among the managers and employees, which shows their commitment to achieving organizational goals. As a result, both employees and managers tend to become more innovative and creative, which fosters further growth of the company.

3. Empowers individuals working in the organization

The increased dialogue and communication across all stages of the process strengthens employees' sense of effectiveness and importance in the company's overall success. For this reason, it is important for companies to decentralize the strategic planning process by involving lower-level managers and employees throughout the organization.

HOW DOES AI HELP IN STRATEGIC PLANNING?

When it comes to adopting or implementing AI within an organisation, business owners and entrepreneurs view it as an expensive approach that would incur high amount of cost to get started. However, this is no longer true via an AI generated analysis that is able to analyse a given company based on limited data but powerful enough to extrapolate into scenarios and possible recommendations.

In our "Witness AI LIVE in Action!" webinars, one of the session involves the analysis of a property trust company using AI during the peak of Covid in 2020 and the aftermath. The name was brought up by a random member of the audience at the beginning of the discussion, annual report processed and one set of 11-page, forward-looking narratives was processed under 15 mins using our proprietary Natural Language engine.

The machine gave commentaries on what happened to the company, the factors that caused the trends, the way forward and strategic recommendations to deal with the underlying issues. We have never analysed this company until during the session itself and we simulated a risk management committee to discuss the findings together based upon the machine-generated reports. All these in 1 hour.

You can even view the AI demo here: https://youtu.be/hQ02EeKdIfs

WHAT DOES THE FUTURE HOLD FOR BUSINESSES THEN?

The pandemic has reset the ways we live, work, and do business, accelerating some long-term shifts and setting new changes in motion. Last year's Mckinsey Global Institute highlighted 12 of the most thought-provoking charts from their research over the past year, in summary they are:

1. Business shifts made during the pandemic could yield greater productivity
2. COVID-19 has altered consumer preferences
3. Asia's consumption is rising—and growing more complex
4. Prioritizing health can deliver economic benefits
5. The world is wealthier than ever—but much of that wealth is stored in bricks and mortar
6. The contribution of business activity to GDP per capita has tripled since 1960
7. Intangibles drive productivity and growth
8. Sustainable, inclusive growth can deliver big benefits for the environment, society, and the global economy
9. COVID-19 imposed major changes in the workplace
10. Rejuvenating traditional sectors can be an engine of growth
11. China's evolving economy requires a different mix of workforce skills
12. Inclusion matters

The shifting of the economy due to the pandemic has brought about unique focus that business leaders are advised to consider when planning their next strategy. Inevitably, the use of technology to give an edge for companies are apparent, further accelerated by current pandemic conditions.

USE AI

For business leaders to stay relevant and embrace this phenomena, they can either Use AI or Build AI. Using AI can in be terms of subscribing to existing AI solutions or implementing it within the organisaton.

One is through the Restore and Rebuild (R&R) Programme offered by the Centre for AI Innovation (CEAI).

http://ceaiglobal.com/restore-rebuild-programme

BUILD AI

Additionally, when it comes to building AI, how much does it cost to build one AI expert system? Most companies prefer to build their own AI internal capabilities. Yet, small and medium enterprises are at risked of suffering further due to high costs to incur for a comprehensive digital transformation.

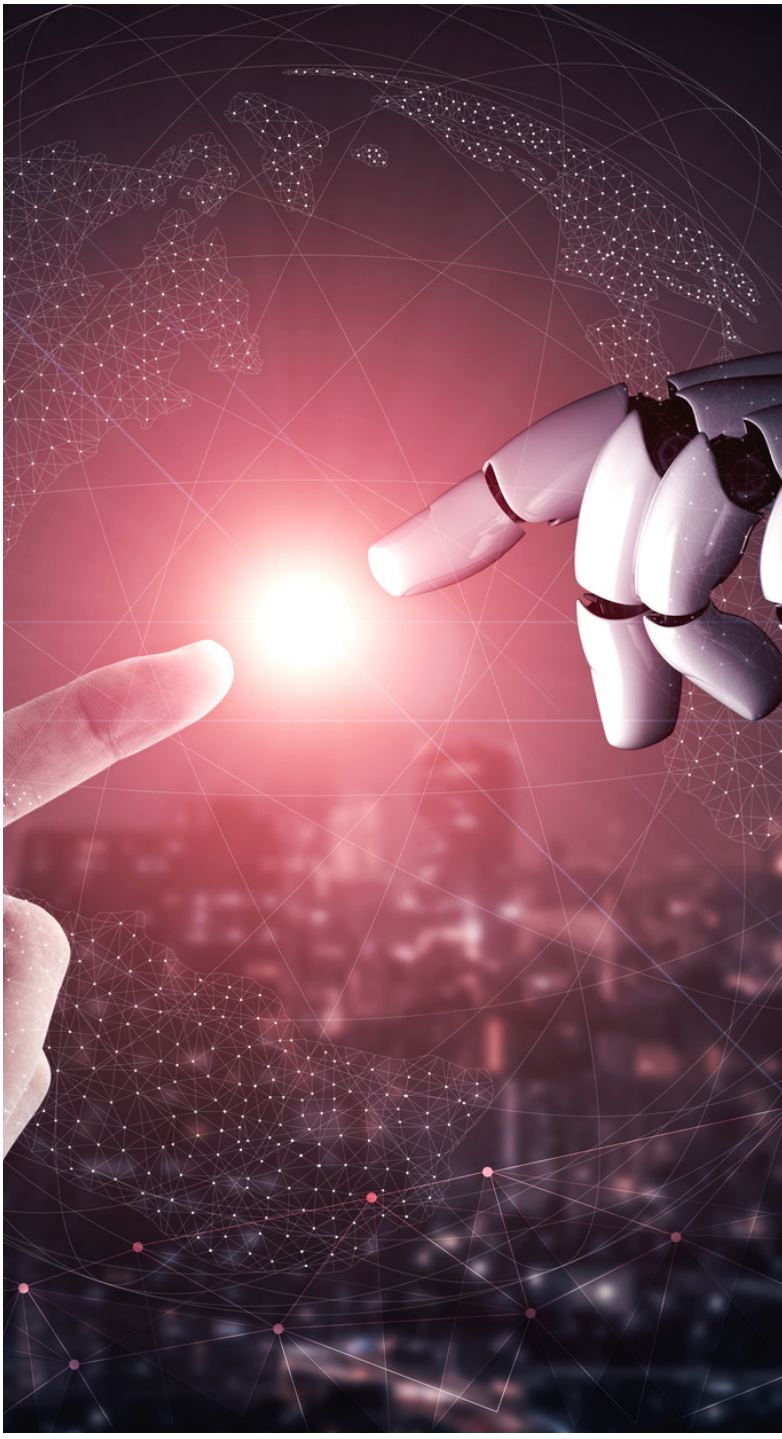
Well, at CEAI we believe that through the Certification in Applied AI (CAAI) programme, participants or project owners can now build AI systems without the need for coding and programming. They will know what goes inside the engine, the parameters and criteria etc. This is an example of explainable AI that ultimately leads to trustworthy AI - under the CAAI no code low code platform.

In summary, digital transformation is a critical component to stay competitive. And we hope in time to come, everyone can adopt and embrace AI affordably without any barriers faced.

If you're keen to know how this is done, feel free to read more about CAAI or email us:

https://ceaiglobal.com/caai

caai@myfinb.com.



PROFESSIONAL CERTIFICATE IN

Applied Analytics

A 3-month online programme with guided exposure to a portfolio of industry projects using AI/analytics

SIGN UP NOW!

For undergrads & fresh grads without working experience (no coding or programming required)

More information

https://ceaiglobal.com/pc-applied-analytics

Registration :

https://myfinb.com/product/pcaa/

For more enquiries, please email /e/ ceai@myfinb.com

CAAI
CERTIFICATION IN APPLIED AI
Powered by MyFinB

Brought to you by
CE.A.I.
Centre for AI Innovation
powered by MyFinB

FROM IDEAS INTO SYSTEMS

DESIGN & BUILD AI PROTOTYPES AS PART OF DIGITAL TRANSFORMATION FOR YOUR ORGANISATION.

GET AI-CERTIFIED

for professionals and practitioners without coding or programming knowledge.

A 3-month professional programme that builds up your knowledge, in order to **develop a solution for industries** and implement to achieve measurable impact.

This is a must-attend especially for those **without coding, programming or technical knowledge.**

www.ceaiglobal.com/caai

3 LEVELS

FOUNDATION
Learn key concepts, understanding various AI models, case studies, assignments.

INTERMEDIATE
Design applications with project assignments linked to industry pain points; develop blueprint design and solutions

ADVANCED
Actual industry engagements and solutions design with MyFinB/CEAI, by applying what you have learnt in Foundation and Intermediate levels - into actual organisations: sandbox, pilot and test runs, with potential for commercialisation with industries.

CONTACT US

MYFINB.COM

MyFinB is an award-winning, high growth AI start-up with core operations in KL/SG and serving more than 30 markets globally.

We specialise in Artificial Intelligence and Natural Language Generation & Understanding (NLGU). Our AI-powered solutions translates structured data (financial statements, bank statements, incorporation info) and unstructured data (publications, social media, journals and video images) into decisioning reports.

MyFinB uses its proprietary NLGU and Cognitive Analytics capabilities to serve 10 core segments: Financial institutions, Enterprises / SMEs, Accounting and Auditing Firms / Consultants, Government Agencies , Credit bureaus, Stock Exchanges, Insurers, Trade Associations and Business chambers, Universities and Investment Promotion Agencies.

MyFinB

myfinb-group

@MyFinBGroup

GLOBAL CHAMBER®

Global Chamber® is a one-of-kind virtual and growing community of CEOs, executives and leaders in 525 regions around the world… everywhere… focused on helping companies grow in more than one metro area.

It is the ONLY organization in the world with hundreds of locations that helps executives grow their company through warm connections and a variety of virtual services.

Global Chamber's vision is a world where doing cross metro and cross border business is as easy as selling across the street. It also provides members with virtual connections, training, and information just right to grow… helping members connect with customers, partners and experts to grow across metros and borders. When members engage with Global Chamber, risk is reduced, and growth accelerates.

TheGlobalChamber

grow-globally

@globalchambe

MALAYSIA

MyFinB (M) Sdn. Bhd.

Level 13A, Menara Tokio Marine 189 Jalan Tun Razak, Hampshire Park, 50450 Kuala Lumpur, Malaysia.

Tel: +60 327 173 418

SINGAPORE

MyFinB Holdings Pte. Ltd.

One Marina Boulevard, Level 20, Singapore 018989

Tel: +65 6932 2658

UNITED STATES

Global Chamber, LLC.

4400 N Scottsdale Road, Suite 9-852, Scottsdale, AZ 85251 USA

Tel: +1 (855) 476-9845