

CIOINSIDERINDIA.COM  
AUGUST - 2022  
DEEPTECH STARTUPS

**CIO**  
*Insider*

Nisarg Pandya, CEO

# DRIVEBUDDY

**AI | LEVERAGING TECHNOLOGY FOR  
FLEETS & LOGISTICS MANAGEMENT**

₹150





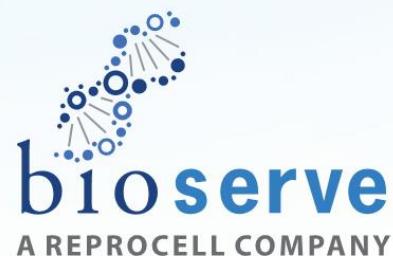
### Serving the needs of Oligo synthesis for the last 25 years

- Scale from nano molar scale (10 nM, 50nM, 200 nM) all the way to milligram scale synthesis
- We offer over 50 modifications
- cGMP grade synthesis for Gene Therapy trials
- mRNA sysnthesis by transcription
- World class reagents for synthesis
- Custom synthesis and gene synthesis



### Offering the latest in DNA Sequencing technology

- Sanger Sequencing, Gene Walking, PCR and Plasmid samples
- Microbial Identification for Pharma QC
- NGS Sequencing on Illumina, Thermo platforms
- Over 20 NGS applications, Real Time PCR, Affymetrix platform on offer
- NGS based Clinical Genomics, NIPT and Onco Genomics services
- End to end Bioinformatics analysis



REPROCELL INDIA LTD, D - 6, 1ST FLOOR, TSIIC, MUSINAGAR MOULA ALI, HYDERABAD - 500040

+91 40 27178178, +91 40 27178176

# Iyer's Pro-Risk Group



**A Team of Experienced Professionals:**  
CAs, Doctors & CISA with a total of over **60 years of experience**



Unique Balance between  
Business Understanding,  
Team Management &  
Risk Management



Associated with various Service  
Providers & Institutions in the  
domains of IT, Workflow,  
Credit Bureau, Fraud Repository,  
Analytics, Education etc

## Our Expertise & Experience :

**Insurance Domain | Bringing out Operational Efficiencies**  
**Risk Management Solutions | Wellness Solutions**  
**Business Strategy and Futuristic Outlook**

**Contact Us for Consultancy Services or Business Solutions at:**

- +91 98 2055 2066 / +91 98 2055 2256
- ganesh.iyer@prorisk.in / shraddha.iyer@prorisk.in
- visit us @ [www.prorisk.in](http://www.prorisk.in) /
- <https://www.linkedin.com/in/ganeshkumariyer>

**WE PROTECT YOUR ORGANIZATION**

<< Get Secured >>

**CYBER SECURITY**

- Security Strategy and Consulting
- Security Solutions across Domains
- Security Attestations and Certifications
- Governance, Risk, and Compliance
- Security Deployments and Management
- Security Training and Staffing
- Data Privacy Solutions and Services
- Cloud Security Solutions and Services
- Application Security Solutions and Services
- End-to-End Cyber Security Management Services

We Protect your Organization's Reputation, Financials, and Customers (RFC); and Confidentiality, Integrity, and Availability (CIA) of your Valuable Business Data!

## SECURITY CANNOT BE AN AFTERTHOUGHT...

We are determined to enable and empower our clients to stay secure, accelerate their business growth, and support them to remain competitive.

Strategize, Manage, and Maintain heightened Cyber Security posture with SAARTH INFOSEC : vCISO, vDPO, vCIO, vCTO, and vISMS Services.



<< Get Secured >>

*Partner and Collaborate with Us to Jointly Put the 'Security First'!*

### SAARTH INFOSEC PRIVATE LIMITED

(A 'Startup India' recognized Company)

Registered Head Office : Mountscape, Pisoli, Pune (MS) India 411060

Presence at : Mumbai | Chennai | Bangalore | Hyderabad | Kolhapur | Satara | Sangli

getsecured@saarthinfosec.com | https://www.saarthinfosec.com

+91 845 912 2400 | 758 884 0605 | 94230 32999 / 98503 03300



VOL 3 · ISSUE 10 -1 · AUGUST - 2022

Publisher & Editor	Alok Chaturvedi
Managing Editor	Sujith Vasudevan
Editorial Team	Shiwani Prakash Saroop KP Vaishnavi Pradeep Rajan Sarma Lakshmi G
Editorial queries	editor@cioinsiderindia.com
Manager Design	Prabhu Dutta A.R.N Ray
Senior Designer	I. Dinesh Kumar
Visualiser	Asokan S V
GM - Sales & Marketing	Nagendra Kumar K
Advertising Queries	Harold Vinson Ezekiah S. Edward Gopalkrishna Sharan  sales@cioinsiderindia.com Bangalore Tel 080 46441103
Circulation Manager	Magendran Perumal
To subscribe	Visit <a href="http://www.cioinsiderindia.com/subscribe/">www.cioinsiderindia.com/subscribe/</a> or send email to: <a href="mailto:subscription@cioinsiderindia.com">subscription@cioinsiderindia.com</a>
Office	CIOInsider No.124, 2nd Floor, Surya Chambers, Old Airport Road, Murugeshpalya, Bangalore-560017

Magazine Price is Rs 150 per issue

Printed and published by Alok Chaturvedi on Behalf of Info Connect Web Technologies India Pvt Ltd and Printed at Precision Fototype Services at Sri Sabari Shopping Complex, 24 Residency Road Bangalore-560025 and Published at No. 124, 2nd Floor, Surya Chambers, Old Airport Road, Murugeshpalya, Bangalore-560017.

Copyright © 2022 Info Connect Web Technologies India Pvt Ltd, All rights reserved. Reproduction in whole or part of any text, photography or illustrations without written permission from the publisher is prohibited. The publisher assumes no responsibility for unsolicited manuscripts, photographs or illustrations. Views and opinions expressed in this publication are not necessarily those of the magazine and accordingly, no liability is assumed by the publisher.

**Editorial**

## Machines Have Been Learning For A While Now

**M**ost of the world's pressing problems are multifaceted, even beyond the business realm. More often than not, they are rooted at the intersection of engineering, sciences, hardware, and software. This predicament calls for the intervention of deep-technology (deep-tech) solutions. It's no wonder that deep tech markets are flaring in magnitude across the globe. Artificial Intelligence is a great example of this. According to Gartner, the artificial intelligence (AI) software market will reach almost \$134.8 billion by 2025, growing at a CAGR of 31.1 percent till 2025 and considerably outpacing the overall software market growth.

It goes without saying that India making the most out of this opportunity takes the combined efforts of investors, private companies, academia, and the government. In fact, some of the initiatives that endeavor to create a thriving deep tech ecosystem in the country are the AIM PRIME (Program for Researchers in Innovation, Market Readiness, and Entrepreneurship) program by NITI Aayog, NASSCOM DeepTech Club (DTC), and India DeepTech.

AIM PRIME aims to promote early-stage science-based, deep technology ideas to market through training and guidance over 12 months using a blended learning curriculum. DTC is on a mission to nurture, build and promote 1000 deep tech product startups in India by 2025. India DeepTech is a pan-industry alliance to promote deep tech startups formed by India's leading deep tech startups, incubators, and venture capital funds involved in working with such startups. If you aspire to be a deep tech entrepreneur, these are some of the channels that can help you kick-start your venture.

**Sujith Vasudevan**  
Managing Editor  
[editor@cioinsiderindia.com](mailto:editor@cioinsiderindia.com)

# CONTRIBUTORS

## EXPERT OPINION



## 08

Digitizing Operations  
is the Only Way to  
Survive

Puneesh Lamba,  
CTO,  
Shahi Exports

## LAST COMMENT



## 34

Digital Transformation:  
Are We on the Right  
Track?

Tarun Bali,  
AVP- Technology,  
The Body Shop India



- 20 Chi SquareX
- 22 DataTwin
- 28 SandLogic  
Technologies
- 30 SEASHORE  
NETWORKS

# CONTENTS

## CXO SPEAKS



**14**

Optimization of Marketing & Product Lifecycle Technology – Development in Progress

**Govind Singh,**  
Group CIO,  
Dalmia Bharat



**24**

Why Data Backup & Recovery Need to Be Part of Your Zero Trust Security Program

**Christos Karmis,**  
President & CEO,  
Mobilitie



**32**

Attention Metric

**Vivek P,**  
VP- Revenue Strategy,  
Times Internet

**COVER  
FEATURE  
10**

Nisarg Pandya, CEO

## DRIVEBUDDY

**AI | LEVERAGING TECHNOLOGY FOR FLEETS & LOGISTICS MANAGEMENT**

# DIGITIZING OPERATIONS IS THE ONLY WAY TO SURVIVE

By Puneesh Lamba, CTO, Shahi Exports

Puneesh boasts of close to a 30-years long career during which he has worked with companies that include CK Birla Group, BILT, Punj Lloyd, GE Capital, TATA Consultancy Services, and Escorts.



Globally, leaders are aiming to enhance organizational performance through the use of digital technologies. These have become core of every organization's strategy these days, and the boards realize that leveraging right technology to solve right problems can definitely give them edge over competition, and labor-intensive companies can transform themselves into tech-driven companies. The wave of leveraging emerging tech before the pandemic gave the world some wonderful new companies in media, shared resource usage, gaming, education and technology itself, and these companies disrupted the existing business models making even some large companies go out of business. Then the pandemic happened, and the world will never be same now. People who were shy to use digital technologies or even online meetings had to do that mandatorily, and now, a large number of those shy people also cannot imagine going to old ways.

Pandemic has fast tracked the digital revolution in each and every company across the globe and people are happier to use virtual process than physical, working from anywhere rather than office, online meetings in place of physical meetings and more. Everyone noticed that anything that moved from table to table, actually moves at a snail's pace compared to anything that moves from system to system or software to software, and this opened the doors for usage of more and more automation using artificial intelligence and machine learning for making automated decisions, augmented or virtual reality to provide



Puneesh Lamba,  
CTO

experience as good as seeing the real thing & collaborating around it, internet of things technology to calculate & improve productivity at shop floors and moving the technology right to the edge of network.

Emerging technology usage not only helps an organization to rediscover its mojo, but also contributes

in a big way to improve the environment, making the business/industry sustainable. In fact, efforts in my current company has taken a metamorphic shift in the last one year, and going digital has become the mantra to focus on largely three objectives viz. improvement in growth, productivity and experience. I am sure you would have noticed that while growth and productivity largely is the focus of every organization in the world, experience is something that is extremely important. It means providing excellent experience to our customers, employees and other stakeholders. At the same time, ensuring that all our efforts are keeping in mind that we give back to mother earth as well as create an ecosystem that helps the industry to remain sustainable.

Few of my favorite initiatives are those which reduce travel of employees as well as our customers and where it is easier to convert physical activities to virtual. These help us save not only time and money, but also contribute in reducing carbon footprint due to less usage of fossil fuel. These initiatives range from virtual tours of our factories by customers using augmented reality-based solutions to leveraging blockchain based fiber to retail, traceability to ensure ethical sourcing practices. Reduction in data entry or its automation will immensely help every organization, as it directly impacts the size of value adding manpower and people can spend more time in those areas that bring real value to the organization rather than just entering and re-entering data.

RRP is another mantra that is taking front stage these days, where we should plan to automate those processes first that are repetitive, rule based & predictable and at the same time, start converting other processes into RRP by eliminating exceptions and process deviations. This has started giving wonderful results in achieving much better productivity overall. It is seen that if we start automating a broken process, then it will not only fail after some time, but also discourage us to pick other processes for automation. So, processing re-engineering or transformation has significant importance.

Experimentation is another area which is fast becoming the way technology works in the industry these days. The digital initiatives should get divided into foundational, desirable and disruptive categories, and while foundational & desirable categories have initiatives that have been tried by others also in world, disruptive initiatives are the ones where

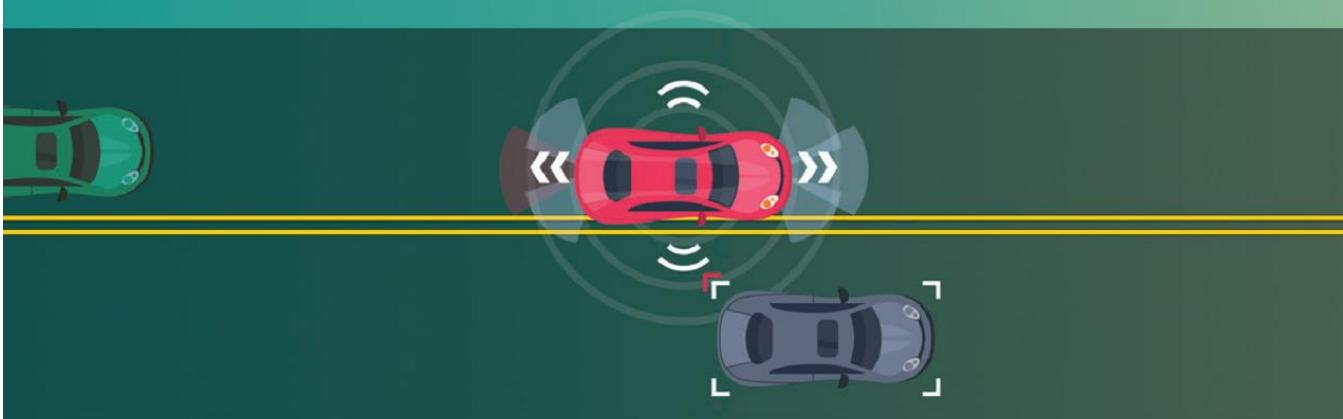


the lead should be taken by CIOs to solve problems in a newer and more efficient manner that has not been imagined/attempted so far. This category requires a lot of experimentation, and in addition of working with traditional partners, it is important to start working extensively with disruptive startups and academia as well as mining the huge pile of ideas of employees. Some of the experiments that I have been doing recently revolve around automatic guided vehicles, computer vision-based productivity improvement and automatic measurement solutions, converting 2D images into 3D models with real time collaboration, AI based identification of fabric composition, fabric inspection recording automation, NLG based training videos translation in vernacular languages, RFID based productivity improvement and more. There are many more, and it is important that we are not afraid to experiment and fail.

With more & more devices, web applications and mobile apps getting connected to the network, it becomes imperative to ensure that there is no hindrance in business continuity, and external threat actors are kept away from trying to steal data or damage network or compute infrastructure. Future belongs to data science and analytics. Currently, a lot of decisions in forward looking organizations are based on data. Data is the new oil, and leveraging its value will definitely give extremely valuable actionable insights and have potential to impact future business models, and that will be real transformation. CIO

COVER FEATURE

# DRIVEBUDDY



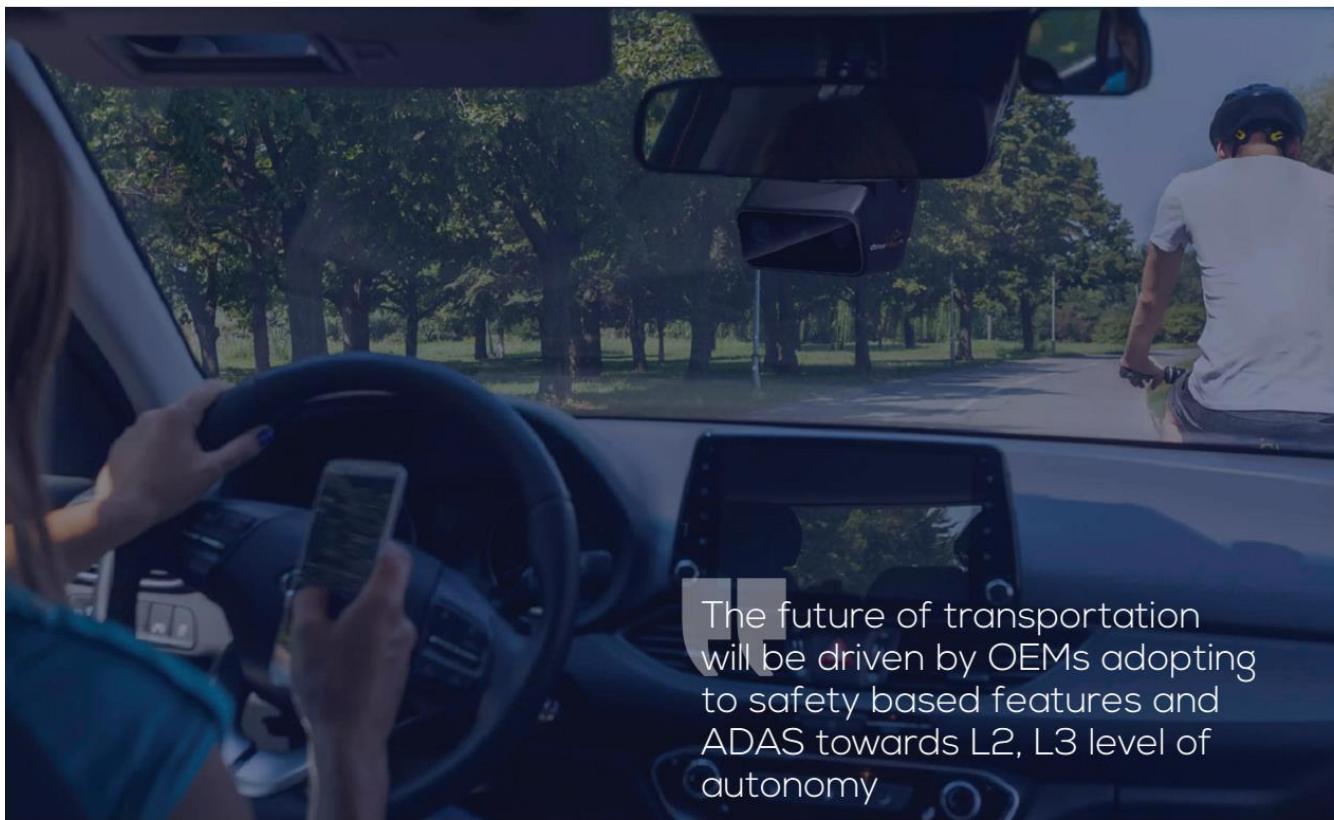
## LEVERAGING TECHNOLOGY FOR FLEETS & LOGISTICS MANAGEMENT

The e-commerce market in India is at a booming stage and this has given a substantial nudge to the logistics industry. Now, everything can be delivered to the doorstep from Food to Fuel! This demands technology in the vehicles that can be our midnight saviors for real-time tracking and assistance on the way. drivebuddyAI is one of the very few Indian companies to build AI-enabled dashcam ADAS as an aftermarket product starting from 2018.

Internationally, the companies have AI-enabled autonomous vehicles that provide all the relevant features. India is a complex traffic ecosystem and to achieve autonomy in India, one will have to learn 'How to Drive?' on Indian roads. To do that the journey has to start with camera

A professional portrait of Nisarg Pandya, CEO, standing with his arms crossed. He is wearing a white long-sleeved shirt, a black vest, and a red patterned tie. The background features a green and yellow gradient with abstract shapes, including a blue car icon on the left.

Nisarg Pandya,  
CEO



**H**The future of transportation will be driven by OEMs adopting to safety based features and ADAS towards L2, L3 level of autonomy

devices which can be used as assistive technology for making vehicles safer.

#### **AI Nervous System for Vehicles**

"We are trying to build an AI nervous system, augmenting human decision-making capabilities for anything in mobility", says Nisarg Pandya. There are three major aspects- Fleet Management, Insurance Underwriting & Autonomous Driving, and drivebuddyAI has dedicated itself to solving them by providing voice instructions to the drivers in real-time. This will help mitigate risks as the high-risk events are flashed on the cloud platform for monitoring. The technology helps the companies to understand the driver's behavior and pattern and also towards risk assessment in the process. This also helps understand the time frames and on-road situation of the delivery process. Commercial vehicle and insurance companies also benefit largely from AI-driven vehicles as it provides a detailed risk assessment.

The extended version of dual-camera ADAS product is six camera ADAS to provide safety with surveillance. The patented camera device is designed with two cameras placed to monitor road and driver's activities using a single device having GPU, CPU, 4G & GPS onboard provides compute power on Edge and telematics functionality. The cloud data is in sync with the driver's information including face recognition. This will help in

the evaluation of the driver's performance and pattern and also correct it.

#### **Efficient Use of Data for Product Development**

drivebuddyAI has been the market enabler for adopting AI camera devices in logistics industry. As more and more companies realize the importance of AI assistance and the Logistics sector invests more into driver safety, there will be a wide scope for the technology, especially in the strengthening ADAS market. From starting with a prototype and receiving funding for its projects, drivebuddyAI has achieved much in a short span. In 2020, it started product development and launched its products in the first year itself.

The roadmap for the immediate year for drivebuddyAI is to achieve 5K deployments including a few global expeditions with more than 10L KMs of data a day with ever-evolving AI to generalize on Indian roads & driving conditions. In the next one to three years, it plans to expand internationally in countries like the US, Japan, South-east Asia, South Africa, Mexico.

DrivebuddyAI is one of the largest data holder in the country with more than 10L KMs of video data of major highways with driver behavior and patterns. To achieve Autonomy drivebuddyAI has enabled itself with OEM integration to take on the journey from ADAS to Autonomy with technology integrations. 



**HTL Ltd.**<sup>TM</sup>  
(A Subsidiary of HFCL Limited)

The Aerospace and Defence Division at HTL Ltd was started in early 2020, which is now fully equipped with state of the art infrastructure, Industry Certifications and skilled & certified workforce. The wire harness manufacturing facility has a designed capacity to build harnesses (1 Mtr- 100 Mtr) and box builds in the range of 15,000 units per annum. The division has started its project engagements and is delivering Build to print wire harnesses to renowned customers in the A&D space. Committed to providing customized solutions to our customers, the facility can be scaled up in order to meet multifold manufacturing volumes within an available space of 20 acres in our Chennai plant and 15 acres in our Hosur Plant

#### Aerospace & Defence Offerings:

Optical Fiber Cables | Passive Connectivity Solutions - Optics | Build to Print - Wire Harness | Box Builds

#### Certifications:

AS9100D:2015 | ISO 9001:2015 | ISO 45001: 2018 | ISO 14001: 2015 | ISO/IEC 27001: 2013 | NADCAP (In-Progress)

LASELAC LASER PRINTER	BRAIDING CABLE	DATA BUS CABLE
HP PLOTTER	POWER FEEDER CABLE	
DIT-MCO WIRING ANALYZER	SCAPC PATCH CORD	FIBER DISTRIBUTION PANEL RACK MOUNT
	HARNESS FOR MILITARY TANKER	
	PCF ASSEMBLY	MPO CABLE ASSEMBLY
		BREAKOUT ARMoured CABLE

**Registered Office:** 57, GST Road, Guindy, Chennai - 600032 | **Website:** [www.htlchennai.com](http://www.htlchennai.com)

**Manufacturing Units:** Chennai | Hosur

**Contact Details:** Rishikesh Doijode, GM, Business Development

**Email ID:** [rishikesh.doijode@htlchennai.com](mailto:rishikesh.doijode@htlchennai.com) | **Ph:** +91 9900014657



# OPTIMIZATION OF MARKETING & PRODUCT LIFECYCLE TECHNOLOGY – DEVELOPMENT IN PROGRESS

*By Govind Singh, Group CIO, Dalmia Bharat*

*Govind has an extensive experience in managing both in-sourced and outsourced IT models, as well as coordinating and communicating efficiently with internal organizations and third-party vendors.*

## Tell us about your experience with marketing and product lifecycle in technology, but what and how it contributed to the progress of development.

I have worked in various industries right from manufacturing to automobile companies to FMCG companies. While working for Gillette, I had contracted with Asia tractors and moved to retail. I was working for a German retail company called Metrical Curry. From there I moved to a few international companies and finally joined Levi's.

## Can you just tell me about your experience, how was the marketing and product lifecycle related to technology.

Product lifecycle-related applications are generally implemented in an environment, whether it's a technology company or it's a user company like our manufacturing company to ensure the overall age of the product in the context of a retail environment. Manufacturing depends on the appearance of an end-product and the environment of the longevity of the product lifecycle in the market and from the manufacturing timeline.

A product has to be marketed across different geographies and should be closed out because sometimes products manufactured by tech companies such as Apple iPhones depend on the product's market growth or how much money the business company is making, both in the terms of top and bottom line. The popularity of the application is an example from Microsoft and phone manufacturing companies/automobile companies will be cannibalizing their old models and launching the new models. There is a lot of science and art behind this when completed manually. It may not be the most appropriate way. Utilizing a lot of inputs from big data sources social media can help in customer feedback

and help in interview conducts. Mystery audit is completed in the retail industry quite a lot. The product life cycle is determined through sunset product or the increasing/decreasing market value.

There are various algorithms and analytics that are utilized for manufacturing and specific product life cycle management applications or PLM applications are utilized. Depending on the requirement of an organization, businesses choose the companies and starts manufacturing. On the limitation to the size of the business and demand in the market, manufacturing completes either manually or automated. For larger companies, it is always advisable and required to have a good PLM application in the market.

## Could you tell me the kind of strategies being implemented in companies to stay ahead of the competition in the market?

Being in the manufacturing industry mainly cement, now, instrument innovations are possible. For example, we can have a simple product like cement can also create a lot of difference in the mindset of the people causing environmental damage. So, we're working on something where we want to become carbon neutral. Carbon-negative in the next few years from now is possible by 2040.

We want to become carbon neutral or carbon negative or if not carbon negative entries. It helps to position business products better. In the case of cement, carbon footprint comes from furnaces, in form of coal, where it is sometimes further killed and can cost you more carbon footprint or less carbon footprint. Depending upon what kind of fuel is used, reclaiming of the exhaust gases is complete. Exhaust gases temperature gets into the technology, but in general, when exhaust fumes are coming out of your chimney in a plant, you use that heat to



## MOVIE OPTIMIZER

## AD & RO OPTIMIZER

## PROMO OPTIMIZER

## STUDIO MANAGEMENT

**sciffer**  
inspiring action



## Capabilities



Machine  
Learning



Deep  
Learning/AI



Visualizations  
& UI



Optimization  
Using Solver

## Media

### Broadcasters

Content, Promo, Deal, RO,  
Advertisements, Pricing

### Digital/OTT Platforms

Recommendation Engine

### Audience Analytics

Signups, Retention, Impressions

### Advertisers/Agencies

Budgeting, Campaign Planning, Scheduling

### Rights/Content

Content Production, Rights Acquisition

## Non-Media

Inventory Optimization

Logistics Optimization

Optimized Routing

101, varsha Airawat, Baner  
Pune- 411045, India

+91 983 313 4040

[www.sciffer.com](http://www.sciffer.com)



preheat some of the things. Maybe a lot of water is required to be heated in manufacturing plants for various reasons to generate electricity.

**What are the breakthroughs in brand design brand new key integrated communication development, brand activation, P&L Management you have witnessed during your corporate experience?**

I've been fortunate to have worked with the finest auto companies globally also in the country. What I have seen in my experience is that large companies or reputed companies mostly keep their mission and vision statement in line with their product life, product lineage, and the way they operate and treat their customers and employees. For example, our mission is to become carbon negative by 2040. We want to become carbon negative in the next number of years. Every activity includes a data center for hosting applications and as a parameter for reclaiming their energy, some of the data centers are using seawater to cool their environment. We also push our customers, suppliers, and vendors to use similar steps which make us overall carbon negative. And this is how you will be impacting or tweaking your overall PNL, financials, and so on.

**Can you tell me how retail design expansion and trade marketing are invented and how you recognize excellent business solutions?**

The most beautiful example of brand images is the Apple logo on an Apple showroom or an online Apple store. Brand recognition is a combination of

various factors in life, which includes the quality of our products, to begin with. Beautifully created or curated quality products align with a company's mission and vision statement. Let's say, in the modern world environment is the major factor for any business to start production. If I'm using paperbacks there, it is aligning with my market image. Now waterless (a product by Levi's) means products need not be washed very frequently, because they have antibacterial properties. They are treated in such a way that instead of washing, all you can work them, let's say twice, as compared to other products.

**Can you tell me about the future of effective communication marketing, the future of effective communication, and marketing?**

In this pandemic, we have learned, all nations like us. Typical Indian organizations or manufacturing companies used to be mandatory to be physically present there, and those meetings and people used to travel from all parts of the country to our head office. What those important critical meetings and all that this pandemic has taught all of us, as individuals, Indian and international companies, that working remotely, must be sitting in some other city and answering in some other city. We can talk to each other, communicate, with my views/ideas, and effectively utilize them. For example, when I have a town hall for my function for my department, there'll be 100 people and 130 people sitting/delivering suggestions to take. So, what I'm seeing here is that the digital way of communication is gaining more and more prominence there. And the marketing, the digital marketing is also going to be gaining more and more prominence there.

While looking at the future of marketing, even the sales initiatives have many sales pitches. These are done online. When businesses are converting more and more digitally, marketing also has to be moving them in the same direction. Like a lot of CRM, programs are coming up with collaborative CRM programs.

As an IT technology professional, this pandemic has changed the minds of a typical technology professional also in such a way that we can get the deliveries done from a remote location. The second part is it has given a lot of boost to the economy of their two and tier three cities. **CL**

# Explore Bengal and the world with us.



**FLYING SQUIRREL  
HOLIDAYS**

*It's taken care of*

122A Southern Avenue • Kolkata 700029 • India • P +9133 4052 5777

E [connect@flyingsquirrelholidays.com](mailto:connect@flyingsquirrelholidays.com) • [www.facebook.com/flyingsquirrelholidays](http://www.facebook.com/flyingsquirrelholidays) • [www.flyingsquirrelholidays.com](http://www.flyingsquirrelholidays.com)



**T**oday, we are almost near to a decade from the time (2013), when Swati Chaturvedi, CEO of an investment firm Propel(x), first coined the term 'Deep Tech'. And, unsurprisingly, today DeepTech has become a class of startup businesses that develop new offerings based on tangible engineering innovation or scientific discoveries and advances. As deep tech ventures aim to solve many of our most complex problems contemplating diverse objectives like growth, inclusion, and equity, their prolific impact can be witnessed across all industries at economic, business, and social level. The next big surge of innovation powered by emerging technologies (especially artificial intelligence [AI], synthetic biology, nanotechnologies, and quantum computing) is expected to be driven by megatrends like global climate change, demographic shifts, resource scarcity, an aging population and scientific progress. However, it happened too. After the pandemic hit, a powerful ecosystem started taking shape to drive the Deep Tech's development. Not only the venture capital and big businesses, even governments, academia, including others benefitted from this, witnessing the power of Deep tech ecosystem.

According to a recent NASSCOM report, 19 percent of all Indian start-ups, i.e. 2100+ startups, are leveraging deep tech to build complex and

innovative products/solutions across industries. Additionally, as per Zion Market Research study, while the global deep learning market was valued to be around \$11542.9 million in 2021, it is estimated to grow to \$80769.6 million by 2028, at a compound annual growth rate of approximately 38.3 percent over the forecast period. The approach of deep tech entrepreneurs will effectively help realize this growth statistics. Also, the complete ecosystem-Government, Universities, Corporates & Startups are equally contributing to augment this growth investing into further improvisation of technological capabilities through opportune combination of science and tech. Revolutionizing the systems and augmenting growth of new markets across industries, there are many deep tech startups reigning the world.

In this issue, CIO Insider has come up with a list of '10 Most Recommended DeepTech Startups - 2022' who have proved their proficiency in the sector with a proficient knowledge in deep technology. The following list is prepared closely scrutinized by a panel of judges consisting of CEOs, CIOs, CXO, analysts, and our editorial board. We believe that these platforms will help in transforming business processes through their significant expertise and knowledge.

## 10 MOST RECOMMENDED DEEPTECH STARTUPS – 2022

COMPANY	MANAGEMENT	DESCRIPTION
<b>Chi SquareX</b> <b>Bangalore</b> <a href="http://chisquarex.com">chisquarex.com</a>	Aditya Girish Pawate, Founder & Proprietor	A fast-growing early-stage DeepTech start-up prospering in Data Science and Machine Learning Market Segmen
<b>drivebuddyAI</b> <b>Ahmedabad</b> <a href="http://drivebuddyai.co">drivebuddyai.co</a>	Nisarg Pandya, Founder	Working towards enabling the commercial fleets with an AI-driven intelligent driver & fleet safety platform, to ensure safety, reduce high-risk events to save on losses to improve efficiency
<b>Genrobotics</b> <b>Thiruvananthapuram</b> <a href="http://genrobotics.org">genrobotics.org</a>	Rashid K, Co-Founder & Director	Genrobotics is an Indian robotics company that specializes in the design and development of robotic-powered exoskeletons and human-controlled robotic systems
<b>Haber</b> <b>Pune</b> <a href="http://haberwater.com">haberwater.com</a>	Vipin Raghavan, Founder & CEO	Leverages Real-time, AI driven automation to maximize plant efficiency & output
<b>Jumper.ai</b> <b>Mumbai</b> <a href="http://jumper.ai">jumper.ai</a>	Yash Kotak, Founder & CEO	An End-to-End Conversational Commerce Platform - discover & checkout on and within social media and messaging
<b>Noccarc Robotics</b> <b>Pimpri-Chinchwad</b> <a href="http://noccarc.com">noccarc.com</a>	Harshit Rathore & Nikhil Kurele, Founders	Aimed at developing robotic solutions for real world problems
<b>OneIntegral Technologies</b> <b>Chennai</b> <a href="http://datatwin.ai">datatwin.ai</a>	Dilip Ramadasan & Raghavan Durgayandi, Directors	Ensures structured data are in place for accurate decision making, improved efficiency, and lower risk
<b>SandLogic Technologies</b> <b>Bangalore</b> <a href="http://sandlogic.com">sandlogic.com</a>	Kamalakar Devaki, Founder	A Full Stack AI company building Edge AI accelerator platforms & Computer Vision APIs for businesses to transform
<b>Seashore Networks</b> <b>Mumbai</b> <a href="http://seashore.network">seashore.network</a>	Ankit Dixit, Founder & CEO	Working with ambitious growth partners to eliminate the digital experience divide in our societies and industries by expediting software-based flexible 5G 4G, and IoT networks
<b>Synapsica Healthcare</b> <b>Bangalore</b> <a href="http://synapsica.com">synapsica.com</a>	Meenakshi Singh, Co-Founder & CEO	Providing AI-driven solutions empowering the Radiology Workflows for healthcare domain

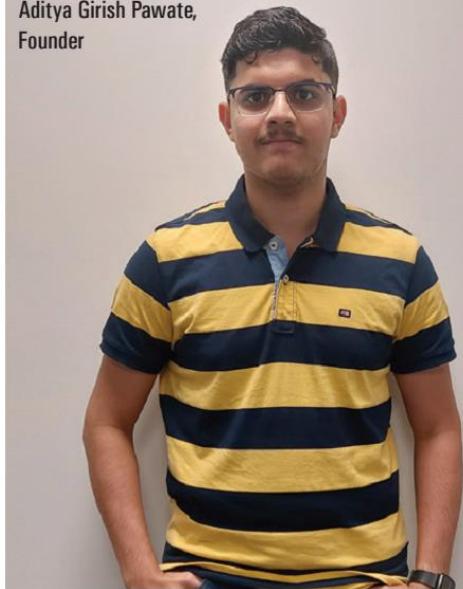
# CHI SQUAREX

## Fast-growing DeepTech Start-up in Data Science & Machine Learning

*The 'profound enabling power' of DeepTech has the capacity to effect genuine change. It uses cutting-edge technology to make real societal changes, and it's never been more relevant. The global pandemic, the urgency of the climate problem, and the rapid expansion of global populations have put further burden on already vulnerable systems, and deep tech is aimed to address these fundamental concerns. Chi SquareX Technologies came into being to cater to this need and is a rapidly growing DeepTech start-up thriving in the Data Science and Machine Learning market segment. Its clientele varies from individuals and small-scale businesses who seek assistance in developing machine learning models or data analytics.*

*Aditya Girish Pawate, Founder & Proprietor, aspires to provide high-quality B2B and B2C services in Machine Learning and Artificial Intelligence. In an exclusive interview with CIO Insider Magazine, Aditya talks more about his professional journey and how he has been able to achieve success in the industry.*

Aditya Girish Pawate,  
Founder



### Tell us about the inception story of Chi SquareX and the benchmarks it has set in the industry so far.

I started Chi SquareX in the year 2020 by gaining clients through some of my relationships and websites and then completing jobs on my own. Then I realised I couldn't perform so many chores on my own, due to a lack of time. I could only take

on a limited project; so I decided to form a group of various team members.

Students from IIT Kharagpur, IIT Bombay, IIT Kanpur, IIT Guwahati, IIT Delhi, IIT Roorkee, and IIT Madras make up the majority of our talent pool at the moment. In addition to Machine Learning solutions, we also offer documentation, blog authoring, and compensated machine learning research. In addition, we offer one-on-one tutoring to individuals. Natural Language Processing, Computer Vision, Machine Learning, Deep Learning, GANs, and related subjects are our areas of expertise.

### What are the major factors you take into consideration while suggesting your Data Analytics and Machine Learning models to small scale start-ups?

Before we recommend Data Analytics and Machine Learning Modules, we need to know what the client's needs are, what data collection they have, and what they hope to accomplish in the end. Once we get this information, we hold a series of thorough discussions with the client and the Machine Learning team, after which we recommend several models of options to the client in order to get the most out of the project. When a client is having trouble figuring out a model or data set, we help them out by recommending an online data set that can be used efficiently while also assisting them in reaching their conclusion. When

a client requests a new model, the team performs the requisite literature survey for them and builds the model from the ground up.

### **Briefly tell us about the workforce of the company responsible for its success.**

Our staff is separated into many teams, including management, machine learning, content, research, design, marketing, teaching, and the Web team. Because I am a undergraduate at IIT Kharagpur, I began assembling our team there. The main workforce is made up of students from IIT Kharagpur. Having said that, we do hire Machine Learning Interns from other colleges after a thorough interview process to ensure that Chi SquareX maintains a high-quality development community. The management team is in charge of acquiring clients and delegating work to other teams such as the ML Team, which focuses on providing machine learning solutions and the web team, which checks the overall functionality of the website, and the content team, which focuses on technical writing, research paper writing, and blog writing in the fields of natural language processing, computer vision, and many other AI-related topics. Our research team, which is wholly financed by Chi SquareX, also works independently to publish research papers in top-tier international conferences. Other teams are in charge of coaching, designing, and marketing, and they all come from an IIT background.

### **How do you understand dynamic customer behaviour and keep up with the changes in the market trends? What are the latest technology trends adopted by the company?**

We have a lot of experience providing Machine Learning Solutions in this market. We understand that all of our customers are looking for cutting-edge technology solutions that they can incorporate according to their business needs. Many of our clients may demand revisions in the middle of a project owing to model advancements over time, we can readily adapt to the client's new requirements because our developers are always up to date on the current trends in the Machine Learning industry. We use Python and R since they are the two most prominent languages for Data Science. Apart from this our team is comfortable with deploying solutions on Jupyter

Notebooks, Google Colabs, APIs or setting it up on cloud servers for the clients as per their needs that are usually available on time of deployment and delivery.

We use Google one for storage, which is adequate for our company's needs. These are the most recent technologies that we employ to deploy and deliver Machine Learning Solutions to our clients. Aside from that, we use GCP, AWS, and Cloud Solutions for specific clients only.

**We serve a niche market area that includes small business start-up as well as individuals. We are pleased to announce that we have expanded our services to 200+ clients, worked 7500+ hours, and have grown to a team of 40+ employees**

### **What are the opportunities that you foresee? Which are the areas that Chi SquareX is going to advance in and what's its future roadmap?**

There are several potentials in the future, we are now focusing on offering Machine Learning and Data Science solutions to our clients. Many of our clients, who are pre-seed start-ups, approach us for the development of their websites, as well as their Android and iOS applications, as well as a data pipeline and Minimum Viable Product (MVP) for them. However, we do not have the bandwidth to take on projects involving mobile applications; this is something we will surely consider in the future and aim to expand our workspace to include the development of mobile applications for our clients. Web design and development, as well as software development, are other sectors that we can target. In future we aim to provide complete business solutions to any new upcoming startup. These are the few developments I see for Chi SquareX in the future.

## DATATWIN

### Enabling Enterprises with the ability to discover the accurate cost of their services, optimize it to find the right profitability mix & enable continuous growth across huge data volumes

*With the sole goal of empowering finance teams to win and become true business enablers, OneIntegral Technologies has meticulously designed a robust platform, DataTwin, to better understand clients' finance and operations processes via pattern recognition, optimization, and simulation in order to build a strong roadmap ahead. Enterprises can discover the accurate cost of doing business from the huge amount of data that persists with them, identify the optimal profitability mix and enable ongoing growth. This is done by tracking income and costs on a daily basis, computing complex cost schemes, commissions and incentives, attributing indirect costs, auditing processes existing, and automating payouts for enterprises.*



#### Take us on a short trip through OneIntegral Technologies' journey over the years and is it stationed in the IT services sector?

In past avatars, the most difficult task was ensuring that the underlying data required for financial reporting was clean and accurate. With multiple systems in use and gaps in processes, the data was prone to becoming stale and erroneous. OneIntegral arose from the necessity to ensure that data related to finance and operations is always clean, allowing for accurate decision making, improved efficiency, and lower risk. In our perspective, the solution to the problem was always to design products/platforms that could handle the intrinsic complexity of the

problem. Though we believe in issue productization, with enterprises as our customers, there is clearly a services component at work, but it is more in the installation of our platform/products and ensuring the customers get the maximum benefit.

#### Tell us about your DataTwin platform and what makes it a unique & robust platform promising financial success?

DataTwin assists finance and operations teams in managing business transaction data and automating reconciliations across revenue, receivables, taxation, fixed assets, leases, and other data, allowing them to spot risk sooner, better, and more efficiently. The platform boosts productivity by automating

operations, decreasing friction and increasing efficiency.

DataTwin is a finance and operations workspace for rapidly growing businesses that unearths truth in data, enables improved decision making, enhances profits, and facilitates continuous growth. We now manage data across processes such as revenue assurance, cost attribution, partner/sales commission payouts, tax management, asset management, lease management, and financial reporting within the platform.

**DataTwin is a Finance and Operations Workspace for rapidly growing businesses that unearths truth in data, enables improved decision making, enhances profits, and facilitates continuous growth**

**What are the latest technologies embedded within the products portfolio under DataTwin and what is the difference they have been making in the industry?**

DataTwin under its hood employs future proof technologies like Graph Databases, Data Engineering at scale, AI/ML algorithms for Deep Learning, Rapid Application development and Automated Process Management.

**Graph Databases:** It helps us build knowledge Graph based products on our platform and eases our workload with respect to complexity, scale & manageability of our code base. It remains performant even with the explosion of the volume of data. Another huge advantage it enables for us is also ensuring the elimination of data integrity issues in transaction data within our products.

**Data Engineering for AI applications:** Any application doing deep learning needs highly capable and robust capabilities/tools to churn and clean the data which is totally missing in the traditional systems. We have built Standard Data Reconciling & Reviewing capabilities which can be applied to any data into our platform, enabling us to improve the data quality drastically which in turn helps in better

outcomes in standard analysis of data and further when AI/ML algorithms are applied for deep learning.

**AI/ML Algorithms for Deep Learning:** We use deep learning and deep graph learning algorithms to identify patterns in data which are otherwise non-recognisable. We use these patterns found earlier to identify and predict growth patterns, course corrections needed to mitigate financial risks related to revenue, collections and taxation.

**Rapid Application Development & Autonomous Process Management:** We have built these into our platform to enable our customers to build better solutions and go to market faster through automation of manual processes, link system processes seamlessly as well and attain a state where all processes are managed autonomously without any supervision.

**Could you acquaint us with a recent challenging case reflecting the success of the company's intervention?**

We have a data platform where we execute financial data reconciliations. The enterprise data is the main protagonist here. And, data has always been a difficult child. It is only because it is constantly snuggled by several processes and people throughout the organisation. A recent use case was the reconciliation of TDS for a BFSI enterprise. The four V's of data- sheer amount of transactions (volume), variety of formats existing inside the organisation for the same data set (variety), data flowing in at different times (velocity), and data veracity- were the key concerns that needed to be addressed. The data had to be cleaned from the company's book of accounts and the government's tax records and also the number of permutations and combinations possible between the company's book of accounts and government tax data. We have substantially aided clients in improving their grasp of the TDS receivables and reducing their financial risk in this area.

**What is the future roadmap envisioned for OneIntegral Technologies? Where is it headed for the next five years?**

There are numerous use cases in Finance and Operations across industries where the need for automation and data reconciliation is critical. In the next five years, we hope to be able to identify these and develop solutions on our platform to help our customers drive performance, innovation, and growth.

# WHY DATA BACKUP & RECOVERY NEED TO BE PART OF YOUR ZERO TRUST SECURITY PROGRAM

By Christos Karmis, President & CEO, Mobilitie

*Holding an MBA from the Warrington College of Business, Christos has been associated with Mobilitie for over 15 years now, prior to which he was the Telecommunications Consultant at Deloitte Consulting.*



**F**or years, the well-known security maxim was, 'Trust but verify'. However, the statement is no longer sufficient. In today's borderless, global, mobile, hybrid, cloud-based environment, traditional security approaches cannot defend the digital fortress on its own, and nobody is to be trusted, including employees, customers, and partners. But there is a way out. Zero Trust is an antidote for stale security strategies because it demands that organizations entirely remove trust from the equation by denying access to everyone.

Zero Trust is all about evaluating the security posture of users based on location, device, and behaviour to determine if the users are who they claim to be. Zero Trust is also about granting just enough privilege, just in time, so that users can perform their needed tasks and operations, and nothing more. With Zero Trust, only minimum permissions are granted at just the right time to get a job done. Then those permissions are revoked immediately upon completion of the job or transaction. A Zero Trust security approach authenticates and authorizes every connection- for example, when a user connects to an



# FEDERAL INSTITUTE OF HOTEL MANAGEMENT FIHM-NOIDA

**INVITING  
FRANCHISE  
PARTNERS**



**WWW.FIHM.IN**

- Start Your Own Hotel Management Institute With International Accreditations
- Also Offering 3 Years B.Voc In Hotel Management & Culinary Arts

## Why Partner With FIHM...??

- Centre Set-Up Assistance
- Support in Recruitment & Training of Counsellors
- Support in Students Enrollment
- National Level Digital Marketing and Lead Generation Support.
- National Level Advertising Support (Digital + Print)
- Job Oriented Courses
- High Return-Low Investment
- In-House Domestic & International Placement Team for Students



A60C, First Floor,  
Sector 63, Noida (UP)

For Franchise  
Enquiry

**9870599666 | 9870599777**

application or software to a data set via an application programming interface (API).

As organizations globally rushed to support the remote workforce with the threat vectors spread across endpoints, combining that with surging cyber attacks prompted them to deploy a zero-trust security model. Early this year, COVID-19 related data of around 20,000 people were reported to have leaked from Indian government sites and were put on sale on the darknet. The data showed name, age, gender, mobile number, address, date and result of COVID-19 report of these people. This is a breach of people's personal identity information and happened on a government website.



Even companies like Apple and Meta could not evade data breaches, when recently hackers managed to obtain unauthorized access to their customer databases. Hence, it is given that bad actors will inevitably get inside any organization's network. Hence, everything possible must be tried-out to minimize the attack surfaces and protect the business-critical data from being damaged or destroyed.

As part of this Zero Trust strategy, organizations must also be exceptionally vigilant around their data backup and recovery strategies. The concept of constantly verifying, continuously authenticating, and always logging who is going where & doing what should apply to regular operations and application usage. It should also apply to the data backup and recovery processes. For instance, it's critical to know who is initiating that backup and where they are backing up the data.

It's also essential to ensure that whatever applications you're using for your backup and recovery,

those applications have embedded authentication mechanisms such as multifactor authentication, identity services, and role-based access. Take for instance, a worker who needs to have data recovered from her laptop. What are the credentials that allow this employee to restore the machine? What permissions were granted, and do those permissions need to be changed to reflect a new set of requirements? If the IT team is restoring a laptop set-up a year ago, who ensures no one else has access to that machine? A Zero Trust approach to data backup and recovery can go a long way towards resolving these questions while securing enterprise data further.

Adopting Zero Trust for backup and recovery can mean extending the security controls that already exist within your environment. For example, applying multifactor authentication to your backup and recovery processes can help establish identity insurance and add a greater level of protection to your organization.

## ZERO TRUST IS ALSO ABOUT GRANTING JUST ENOUGH PRIVILEGE, JUST IN TIME, SO THAT USERS CAN PERFORM THEIR NEEDED TASKS AND OPERATIONS, AND NOTHING MORE

Immutable storage should also be part of any Zero Trust initiative. Immutability is when data is converted to a write-once, read many times format. Immutable storage safeguards data from malicious intent by continuously taking snapshots of that data every 90 seconds. Because the object store is immutable, you can quickly restore data even if someone tampers with it.

As data breaches grow in volume and complexity, organizations must consider novel approaches to strengthen their protection against cyber threats. Zero Trust is not a specific technology or architecture. Instead, it is a new way of thinking that can help you achieve robust threat protection and gain next-level security. **CIO**



Reviving Dreams  
Video Production House

# A WELL CRAFTED **VIDEO** IMPROVES THE EXPOSURE OF **BUSINESS** VENTURE MULTIFOLD



## We've got what you need!

At Reviving Dreams  
we create best visual stories  
for your business

### OUR SERVICES

- Corporate Videos
- 2D/3D Explainer Videos
- Brand Promotional Videos
- Event Highlights Videos

---

### GET IN TOUCH WITH US

---

+91-9966357297

[www.revivingdreams.com](http://www.revivingdreams.com)

[info@revivingdreams.com](mailto:info@revivingdreams.com)

# SANDLOGIC TECHNOLOGIES

## Simplifying AI to Solve Mission-Critical Problems of Organizations

*Autonomous systems, robots, smart homes/cities, medical devices, cleantech, energy efficiency, and much more growing or emerging application fields are all impacted by deep tech. Founded in 2018 by Kamalakar Devaki and his team, SandLogic (SL) Technologies is a full-stack enterprise AI company that provides LCNC platforms to develop deep learning applications to run on edge devices. Kamalakar and his team are born with a passion for deep-tech industry experts who came together to innovate tomorrow. And, build commercial-grade solutions using AI, ML, deep learning, computer vision, NLP, & edge AI to deliver the AI that powers enterprises. They are on a mission to enable enterprises to achieve the optimum force in their digital transformation & automation journey.*

In conversation with **Kamalakar Devaki, Founder, SandLogic Technologies**

### **What made SandLogic Technologies begin its services based on the deep tech domain? How is your organization placed in the market?**

When leading IT & product professionals came together to build on a common thematic of helping mid to large size companies in adopting AI much faster & simpler, that's where SandLogic was bootstrapped. The team which started from a rented flat by Radhika Kanigiri, Ravi Kumar Rayana, Jesudas Fernandes & Kamalakar Devaki, has grown to 40 members today. And, operational in USA & India. Today, we are ultra-focused on deep learning & edge AI space. TXTR (OCR/ICR)& EdgeMatrix.io (Edge AI) are the team's current focus which spans Enterprise AI & Industrial AI respectively.

Furthermore, SandLogic was the first deep tech Start-up to demonstrate a successful custom SoC based on Shakti Vajra RISC-V processor combined with a deep learning accelerator that could run neural nets for image classification and object detection. We were the only team among 30 finalists of the Swadeshi microprocessor challenge organized by MeITY to demonstrate a custom SoC with a RISC-V and DLA on an FPGA board.

### **Tell us about your portfolio of products and solutions that has made a difference for your clients.**

The key products which have helped customers in jump-starting their AI journey are EdgeMatrix.io –



Kamalakar Devaki,  
Founder

CORE, EdgeMatrix.io – SL DLA, TXTR, and AuVi.io. EdgeMatrix.io – CORE is for porting models from one AI framework to another, including target / hardware-specific format. Whereas EdgeMatrix.io – SL DLA is for a complete end-to-end deep learning accelerator functional stack that can be integrated into different modes to realize AI chips or AI processing SoCs on FPGAs. Thirdly, TXTR is for a visual intelligence & NNLP-based intelligent document processing platform that aids in the automation of the business process/workflows through capturing, classifying, verifying, & extracting insights. And lastly, AuVi.io is for data annotation & ML Ops platform for all AI project needs, right from data set preparation to model training & monitoring. All the products are built in-house and will be soon out in the market as SaaS offerings.

Along with this, our firm has developed some unique solutions for our customers which includes road & pavement rating system, data & IP protection at endpoints (laptops & desktops), scan less pallet recognition & box-counting, scan less pallet sorting using edge AI attached for forklifts, and scan less catch weight using edge AI.

With us, customers can design, develop, train their AI models, and port/deploy them onto small devices to cloud servers.

**Today, we are ultra-focused on deep learning & edge AI space. TXTR (OCR/ICR) & EdgeMatrix.io (Edge AI) are the team's current focus which spans Enterprise AI & Industrial AI respectively**

**For such exceptional products and solutions one needs the latest technology, could you give a brief account of the latest technologies adopted by the company?**

Under the AI and ML-related technologies and tools, SandLogic has adopted some latest trends. These technologies are NN development frameworks like TensorFlow, PyTorch, Keras, Caffe, ML.Net, Flutter,



and TFLite, which provide neural nets in a different format. Then, the NN interexchange format converter converts from one format to another and to a specific target-specific format. Thirdly, edge device and GPU specific SDKs and compute engines like TRT for Jetson, DLC for Snapdragon, VITIS AI for AMD Xilinx, OpenVINO for Intel, CUDA for NVIDIA GPUs, etc. And lastly, neural net deployment-specific MLOps like serving frameworks like BentoML and torch serve.

**Hence, with such extraordinary services, where is the company headed in the years to come?**

Annual Edge AI processor shipments are forecast to reach 1.5 billion units by 2023, according to IDC. But, less than 0.1 percent of 1.5 billion are the Edge AI developers available in the market (who understand the hardware as well as AI software). SandLogic is filling that gap with its low code/no-code developer platform which helps organizations in automating the deep learning model porting on the edge life cycle.

Also, SandLogic is working on launching two one of its kind value-adds in the market which are ready to use soft DLA stack– compatible with RISC-V & ARM architecture and customized & optimized deep learning model zoo, as cloud API. With these major breakthroughs, the organizations can convert their non-AI hardware, much smarter & deploy AI models in hours rather weeks. ☑

# SEASHORE NETWORKS

## Boosting Enterprise Production by Developing Excellent Last-mile Networks

*The ongoing technological revolution has given rise to deep technologies that will be at the heart of the next wave of information disruption. India has witnessed accelerated digital transformation in the last decade. To support increased production while reducing errors, digitization will play an important role. Seashore offers these businesses Private Cellular Networks. Seashore's unique software-driven offerings allows enterprises to continuously reconfigure their networks. It enables operators to add intelligence, quickly adapt the network to diverse services, and automate processes to swiftly scale the network and lower the Total Cost of Ownership (TCO). The company has been recognized by the global community as a pioneer in the field of 5G and Wireless. It is also among the top 30 winners of the famous Indian DoT 5G Hackathon, which was overseen by Prime Minister Narendra Modi. Seashore Networks has concluded successful 5G trials with tier-I operators running live traffic and their latest offering Private 5G series is available commercially to deploy.*

Ankit Dixit, Founder of the company is a dynamic leader with a strong background in marketing, sales, analytics, digital, mobility, and business performance management. Ankit has spent many years in the wireless industry, not only advising Boards and C-suites on transformational decisions but also purchasing network technology and equipment. He noticed a market gap at this point. The future wireless infrastructure cannot be scaled economically if it is hardware-centric, more and more network functions must be delivered using the software so that the digital transformation does not stall due to a rigid network. Instead, a flexible network becomes a competitive advantage for future peer differentiation.

In an exclusive interview with CIO Insider Magazine, Ankit talks more about his professional journey and how he has been able to achieve success in the industry.

### Tell us about the journey of Seashore Technologies Networks and the benchmarks it has set in the industry so far.

Our mission is to bridge the digital divide between large & small organizations. Furthermore, we employs a software-driven strategy to offer high-end 4G 5G wireless networks to small and medium-sized businesses. Our clients include both large & small businesses that requires the operation of major plants. For both sides, Our system is affordable and ground-breaking. While working with big telecoms and software businesses, we witnessed how enterprises and sectors struggled to obtain the connectivity required to enable digitization. Enterprises believes that current network technologies are insufficient for IoT and digitalization initiatives. Wireless alternatives such as WiFi, LoRa, Tetra, Zigbee, and Bluetooth are replacing old and expensive wired technology. Seashore Networks offers a completely software-driven technique for constructing private 5G local area networks for enterprises or industries,



Ankit Dixit  
Founder & CEO

such as factories, warehouses, ports, and mines. It can power the largest of gigantic organizations while scaling down to handle a small-medium business setting of one to two acres. A plant manager can use their service to set up, manage, and administer his or her own private intranet WiFi bubble.

**Give a brief account of your Private 5G which adapts to higher workloads within a minute as digitization gears up?**

Seashore's unique scale as you grow approach 5G networks aids with capital investment planning. In Year one an operation may begin with 600 sensors, some for measuring vibration, humidity, and CCT-Vs. When the plant looks at further digitization and increasing the sensors by four folds to get more accurate details and do better predictive maintenance in two years, the Seashore network can easily scale up from serving 600 sensors/connected devices to 2000, if more is desired, that can be done as well.

**We adore math and coding. We are a team that takes pride in using extreme engineering to solve severe issues. Our ultimate goal is to create the most adaptable last-mile wireless software to digitally empower people, society, and industries**

**Could you tell us about the latest technologies adopted by the company for ensuring reliability and security?**

For 5G, we use software-defined mobile networking technologies and optimize with outstanding code and Artificial Intelligence. We develop open interfaces to enable Edge computing and exciting IoT applications. Some customers are large telecoms that provide Seashore's offering to enterprise customers. And Seashore has passed rigorous 3GPP-based test-



ing with some of the ecosystem's largest Tier-I companies. Furthermore, the ability to switch in and swap out a rogue software module without disturbing operations is very feasible.

**Tell us about the workforce of the company responsible for its success.**

We have a strong belief in this market and space. The entire team is motivated by the desire to inspire industry leaders to enable digitization on a flexible network- iterations lead to a huge distinction. The team is made up of a very uncommon group of very brilliant individuals who enjoys Math and Code. The company's advisers include industry giants such as top C-levels and board members of Infrastructure Companies, Distinguished Engineers who set 5G & 6G standards, and Software professionals from the space-tech business.

**What are the opportunities that you foresee? Which are the areas that Seashore Technologies is going to advance in and what's its future roadmap?**

Seashore is quite optimistic about the connectivity for enterprises/industries. This market will be driven by the desire to do more with less in order to increase economic value for shareholders and the nation. Consider a country that wants to double or triple its GDP- how much transformation must occur in its ports, factories, and so on. Connectivity is a critical component of that shift. **CL**

CXO SPEAKS

# ATTENTION METRIC

By Vivek P, VP- Revenue Strategy, Times Internet



Vivek P,  
VP - Revenue Strategy



## T

The digital advertising industry's one of the prominent promises was transparency, and this was revolutionized by the 'click' metric. Click for advertisers was an ROI metric representing risk mitigation strategy resulting in large amounts of digital advertising capital allocated to digital medium.

The increasing competition, pressure to deliver consistent results and overt focus on short term ROI has marred the digital advertising landscape with evils such as clickbait and other abuses. If advertisers would look closely, they would find their focus or over focus on buying 'clicks', however, the clicks no longer have the same credibility they once carried. Also, digital, a advertising medium favourite for lower funnel advertisers, has moved-up in the favorability matrix for top-of the funnel advertisers.

Brands characterized by nearly decrepit feedback loops and developed sales cycles, also desire ad measurement metric beyond clicks and impressions. The desire for new ad measurement originates not only because of the need for better ROI metric, but also because there is a growing understanding that digital medium metric can be used to do much more by informing advertiser subtleties about the brand performances such as how much resonance an ad created for a brand.

Advertising is about buying and selling 'attention', while the click is an expression of interest not expression of attention, and hence, at best a proxy for attention. With the advent of data science and big data capabilities, today, it is possible for the digital advertising industry to transition from a proxy metric to actual attention metric. An added advantage of these actual attention metrics is that they capture the consumer experience holistically.

Viewability, a basic alternative unit of attention measurement, drives its value from the fact that an ad has to be on the viewable portion of the screen. This unit gives



## Viewability, a basic alternative unit of attention measurement, drives its value from the fact that an ad has to be on the viewable portion of the screen

many commercial arrangements such as cost-per-thousand viewable impressions. Viewable impression can be defined as the impression seen by an audience; e.g. an ad at the bottom of the page may register an impression, but unless scrolled to the bottom and seen by a human being, it does not become a viewable impression. We, at Times Internet, have always strived to come-up with innovative technology led solutions for our advertisers, and in this process of continuous improvement, we churn-out several internal research. Moreover, viewable impressions are expected to impact Brand Lifts too, but the impact is slightly less pronounced as on the CTRs.

Viewable impressions has struggled with its own set of challenges including higher cost of viewable impression, detrimental impact on user experience, susceptibility to fraud and manipulation through obscure ads.

Moreover, something is amiss because viewable impressions do not differentiate between ads that are viewed for only a few seconds from the ones that are viewed for a few minutes. In this endeavour to find the right metric for attention measurement, one missing ingredient is time-in-view or duration of ad view. Buying ads on a time-in-view metric solves for ads with time as a representative of attention values the ads with more time spent more.

Time-in-view helps advertisers to understand several aspects such as response and engagement to different creatives within the same and different campaigns. An insight which is invaluable when combined with target audience and other related factors. These combined can act as a very insightful feedback loop for marketers during strategy and campaign design. However, time-in-view doesn't address share of attention, meaning there could be a number of ads in view at the same time for the same duration, but assuming that all the ads get equal attention which might not be true.

In the future, technology can be used to address the gaps left by time-in-view. Technological means such as tracking movement or interaction via a mouse or even eye, however, privacy norms would have to be kept in mind while designing such technological solutions, as not many users may not be comfortable sharing where one's mouse is pointing, leave alone what part of the screen eye is watching. With the evolving digital advertising landscape, proxies are no longer a measure of ROI of advertising budgets and in the dynamic and cluttered environment of digital advertising, an Attention Metric is the potential future media currency. CIO



## DIGITAL TRANSFORMATION: ARE WE ON THE RIGHT TRACK?

*By Tarun Bali, AVP- Technology, The Body Shop India*

*Tarun is an omnichannel evangelist currently working for Quest Retail Group (The Bodyshop, Kiehl's, & Boddes) in the India and South Asia markets as AVP & Head of IT.*



**D**igital Transformation' is one of those buzzwords whose original meaning has gotten lost in translation, yet it's evident that effective technology use is more important than ever before.

Adopting technology for the sake of it isn't the goal of the digital transformation. Going digital is a long term strategy that should make a company 'more agile' where it matters, allowing it to focus on innovation and experience to build frictionless and seamless shopping journeys across channels.

Traditional marketing tactics like mass targeting and silos business operations are no longer effective. Instead, clients should be treated as individuals, with relevant offers delivered at their preferred time, location, and channel based on their region, behavior, and purchasing history. While retail consumers grumble about distinct offers for online customers, most of the online buyers find it frustrating that the digital support alternatives are not as good as physical support.

Many corporate leaders, on the other hand, regard digital transformation as only a question of implementing new technologies while overlooking the human aspects of the process. As a result, sometimes the technology team took over

ownership of the project from conception to completion, while the business team loses insights and becomes unable to adjust and adopt new systems. To make it successful, it is important for the business team to lead the project from the front, aligning internal processes and workforces with new trends through more rigorous training, commitments and ownerships. The main difference between success and failure is cross-functional and technical team planning and coordination.

To eliminate internal inefficiencies and working boundaries, everyone from the top down should take ownership and responsibility for creating a boundary-free, seamless, and frictionless experience for end customers.

### The Human Angle

As retailers struggle to transform their entire business to become more customer-centric, personnel management becomes a key battleground in the fight to elevate customer service from 'the expected' to 'the difference'. While payroll is the most controlled expense, the complexities of managing in-store workers might appear overwhelming at times. Humans provide the necessary creativity, skill, and invention that computers lack. As a result, it is people, not technology, who develop products for better experience. Whatever knowledge you

impart to the system, it will act and adapt accordingly.

Businesses succeed not because of creative products, but because of company culture, which can continually identify problems, take feedback, and collaborate across departments to accomplish 'business purpose and objective' that can be translated into customer experience and, eventually, income stream.

### How to achieve this?

Rather than focusing on major milestones when migrating, firms should employ an agile strategy to generate smaller pieces of alterations and enhancements while engaging with functional departments. Instead of depending on technology teams to drive their strategy, everyone should grasp the digital ecosystem and make product success with fastest turnaround. Furthermore, automation demands more severe monitoring and upgrading owing to changing customer behavior and trends, and it cannot be left alone to make decisions.

### The Bottom Line

Digital transformation does not entail a comprehensive technological revolution across all functions; rather, if smaller stepping stones have been achieved, you are on the right approach in achieving your end goals. ■



# simplifying IT

## No Legacy Problem Here

**Services we Offer**

**DEVOPS CONSULTING**  
As your DevOps Services Partner, we help transform culture & automate system with more quality before it reaches to customer quickly.

**WORKFORCE DEVELOPMENT**  
We help in creating next generation workforce by doing Role based competency Assessments, structured Trainings – using standard DevOps practices.

**AUTOMATION SOLUTIONS**  
We help accelerate the software delivery process by our Automation solutions that enable continuous Integration & continuous delivery focusing on effective ops for bimodal IT.

**AJAR DBMS**  
The DBMS essentially serves as an interface between the relational database and end users or application programs, ensuring that data is consistently organized and remains easily accessible.

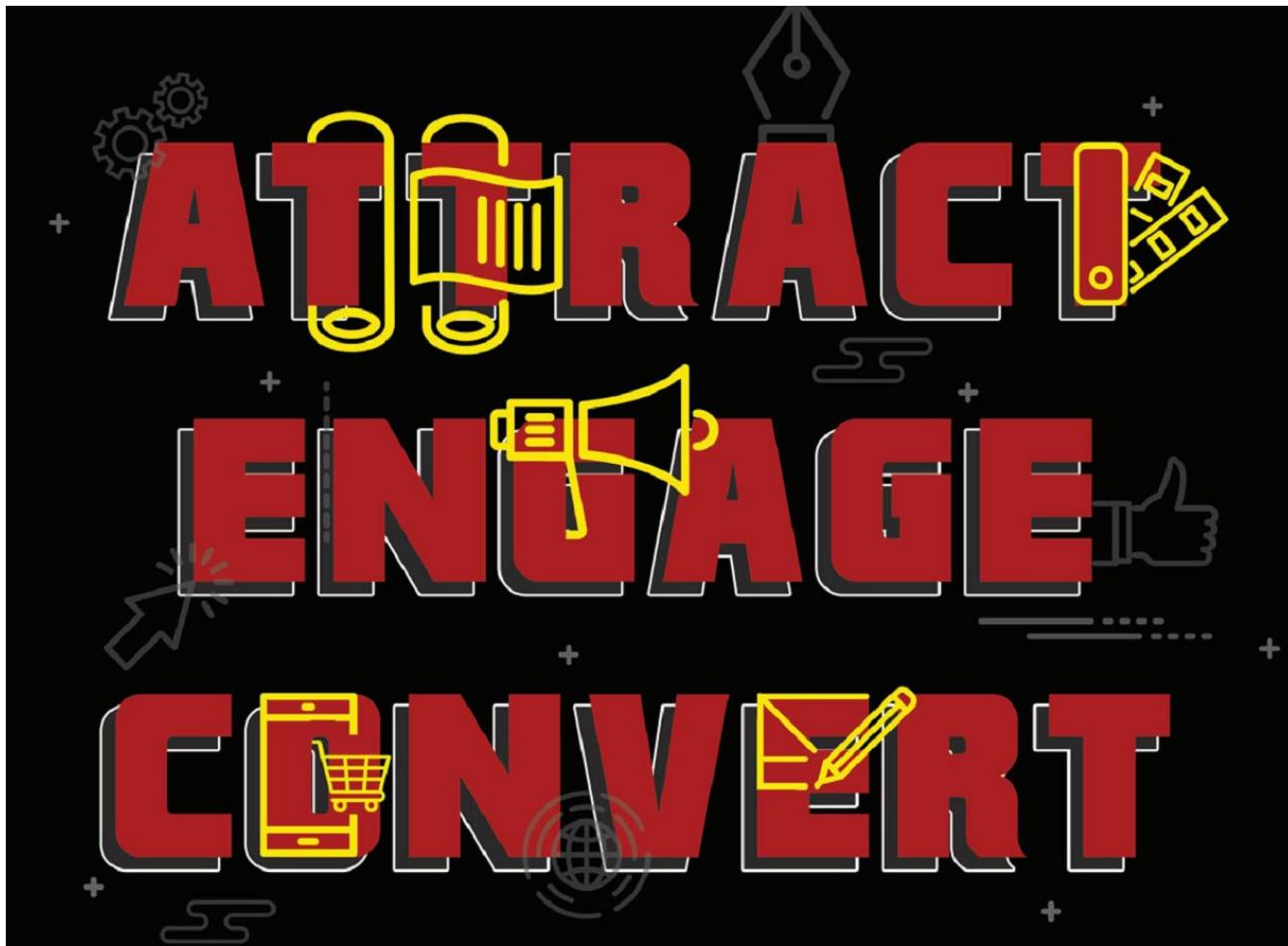
**DEVOPS SOLUTIONS THAT WORK FOR YOUR BUSINESS**

Driven to ensure high customer satisfaction, the company extends DevOps offerings which are Analysis, Design, Implementation, Support, and Training across a broad range of industry verticals. Catering to each customer's unique requirements, the team with their decade-long software industry exposure across the UK, US and Germany as consultants of a gamut of niche technologies designed a novel process. With a set process in place, the team begins with understanding the client's current systems, culture analysis and submits an effective report to the key stakeholders to inspect for improvements. This is followed by assisting Software Teams to move towards implementation of the plan in multiple phases. "Each phase shows the progressive journey with the realization of DevOps and of course improvements like Time to Market, Quality and a positive energy in Project Teams.

 Atgen Software Solutions

107, Tower B, Escon Arena, Zirapur, Mohali (SAS Nagar), 140603  
Tel 91-9999715545/91-8806666141 Email info@atgensoft.com

WWW.ATGENSOFT.COM



**websites film production photography apps print branding digital marketing**

OUGHT TO RE-VERSE  
**REVERSE THOUGHT**  
CREATIVE STUDIO PVT. LTD.

+91 9930 6581 07 | +91 8291 8629 24 | contact@reversethought.com | reversethought.com

[f /rtcspl](#) [t /rthoughtindia](#) [in/company/2386925](#) [y /user/tusharargarg](#)  
[g /reversethought](#) [p /reversethoughtcreativestudio](#)