

Modelling the Future

With the title of 'Most Innovative AI & Data Science Start-up' in 2021 for the region of Qatar under its belt, AGDS Computer Systems has made itself a cornerstone of industry. Critically, its algorithm creation and deep technology solutions are shaping the future of Qatar and the world, providing governments and internationally concerned entities with the technologies needed to appropriately respond to the trials of the pandemic.

AGDS was founded in 2015, based in Qatar. Fundamentally, its purpose was and is to funnel investment into new and niche deep technologies, from their research and development to their promotion, sale, and commercialization – specifically regarding the field of emergent behaviour. This usually means replicating biological systems that use artificial intelligence, applying it to cybersecurity, healthcare, and business intelligence. In terms of the AGDS Computer Systems' client base, it is a widespread and varied roster that spans a multitude of different industries, but primarily it serves government organisations, the military, and intelligence organizations.

Large entities such as airports, healthcare, and banks also frequently contract its work, as being a very flexible company with a deep scientific knowledge, it competes with the largest companies such as Oracle, IBM, Accenture, and KPMG in its industry. This, crucially, has allowed it to secure its place in the pecking order of a competitive field in which developments and keeping oneself up to date is key, offering customers lower costs and better adaptations, with higher reactivity and flexibility.

Furthermore, it thinks of its staff as a family. This community and group-minded atmosphere allows it to cultivate a healthy and productive working environment full of team players who are excited to push the limits of ingenuity, where every voice is listened to and valued. In addition to this, its recruitment process prizes candidates who display a high intelligence quotient, seriousness and professionalism, creativity when it comes to problem solving, and an interest in mathematics and computer science.

Its recent developments have caught the eye of heavy hitting entities all over the world; for instance, the development of PANDEXIT, a product that uses a unique combination of AI and ABM – agent-based modelling – emulates the social dynamic of an entire population in order to run simulations. These simulations specifically have been built to mirror certain scenarios that impact a population during a pandemic, allowing the development of a pandemic propagation model that is incredibly granular, and invaluable to officials.

This also has allowed governmental officials and institutions to react to different variants of Covid-19. Through use of modelling technology, it can forecast how each variant will act in a population and how it travels, keeping an eye on what factors and variables need to be strictly controlled in order to decrease risk as much as possible. Its simulations are uniquely clear, working to a demonstratable level of detail, and with each element of it carefully designed to replicate a naturalistic scenario that accurately mirrors the modern social workings of a specific country or region.

This, previously, has been a solution that was sorely lacking in governmental organizations. In tandem with the granular nature of the programme that allows it to ascertain such an in-depth insight, allowing it to make predictions at 30 to 40 days with a unique level of accuracy. Due to the in-depth and dependable nature of AGDS' work, it has become the company of choice for several high-profile clients. Most recently, it has been selected by one of the major international airports in order to develop most of their future AI systems, one that will be able to handle a wide range of different solutions – and one that will ensure the client is working with streamlined and smart software. This will be something that arranges everything from predictive maintenance to predictive asset replacement for the airport and its staff, as well as covering platform attribution, energy saving, and more.



AGDS has managed to secure its place in its niche due to the relative difficulty facing deep technology in Arab nations, and its dedication to bucking this trend. By working hard to change the region's attitude towards it, it is client by client achieving a regional shift in attitude, showing how much deep technology can benefit a population's leaders in the provision of accurate modelling. This allows rules and regulations to be fundamentally informed by how it will impact a population. Therefore, to leaders of industry and governance alike, it is an invaluable tool to have on side – and AGDS is continuing this push to reach yet more authorities in Qatar.

Should a client be intrigued to learn more prior to getting in contact, it encourages them to go to its website; here it has a multitude of different resources that are available for them to peruse, from videos to specific details and press information about their work, all of which has been designed to be user friendly. AGDS, despite being a relatively new company, has come a long way in achieving its goals and making itself the cutting-edge new solution for the modern world. Its algorithms, informed by the best and brightest and their innovations, build futuristic applications that are supported by its ability to make itself a business partner to its clients.

This speaks to AGDS' customer service acumen as well as the excellence of its technological solutions, the proof of which can be found in the strength of its partnerships – with bilateral cooperation agreements with renowned laboratories all over the world, as well as universities and foundations, its influence is growing by the day. AGDS is the company that systems integrators reach out to when specialist systems are needed. With systems that are top-of-the-range, integrated, and fit-to-purpose, it works hard to ensure that the data a client will glean from its work can always lead to direct, actionable results.

In a similar manner, its work in essence wishes to make computers more effective at serving humanity. This, AGDS hopes, will create a future in which technology becomes an active partner in bettering the



world through an in-depth understanding of human behaviour and how certain stimuli will affect their behaviour, connecting computing power directly to human activity. Although it knows there is still a long way to go in terms of the promotion of this approach, it is confident that the market is experiencing a tone shift; one that has been made especially prevalent by the last year or so.

Over the course of the pandemic, people have had to rely more than ever on technology. From intrapersonal communication to governmental liaising, business deals, and more, everything has had

to pivot online, making computed solutions to modern problems a more important field than ever before. Moreover, when one considers what Pandexit does and how much it is tailored specifically to make government and official lives easier when considering the impact of rules and regulations, it becomes clear just how much algorithm creation and deep technology will be important going forward.

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