Data Science for Immersive Society Application

Data science is an emerging discipline that combines techniques of computer science, statistics, mathematics, and other computational and quantitative disciplines to analyze large amounts of data for better decision making. The field arose in response to the fast-growing amount of information and the need for computational tools to augment humans in understanding and using that data.

"the power of data science is typically harnessed in a spectrum with the following two extremes: helping humans in discovering new knowledge that can be used to inform decision making, or through automated predictive models that are plugged into operational systems and operate autonomously." Put plainly, these two ways of using data can be summarized as turning data into knowledge, or converting data into action.

So far, most of the uses of data science have been towards business objectives. The technology, financial services and advertising industries are rife with opportunities to convert data into profit. But now, more and more innovative social sector organizations are catching on to how technology and data science can be used to solve their problems.

Examples of how data science can be applied to the social sector include:

- Reduce crime and recidivism: Predictive modelling can be used to assess whether an inmate would be likely to reoffend, informing the parole decision.
- Give tailored feedback and content to students: This can be used to model how much students are learning and understanding, tailoring problems.
- Spot nutrition deficiencies: Data tools can be built that monitor vitamin and mineral intake, warning users of deficiencies in their dietary and health habits.
- Early prevention of shootings: Network-based analyses of gangs can be used to predict where and when future shootings will occur.

Diagnose diseases early on: Leveraging genetic, imaging, and EMR data to provide early diagnosis of diseases such as Parkinson's, M.S., and Autism.

It's clear that we can be optimistic about how data scientists can use the data at their fingertips for social good. As an emerging technological frontier, data science is in a position of immense potential. As a result, there is much to explore about how we can use it to push the human race forward.

Thought from Managing Editor

When I chaired session on "Data Science for Immersive Society Application" at International Confidence on Data Analytics, Machine Learning and Innovation.

Panel discussed perspective of usage in Data Science in preventing Climate Change, Health Care with special emphasis on Cancer Treatment, Security and details on facial recognition advantages and challenges.

Colonel Inderjeet Singh

Chief Cyber Security officer, Vara Technology Pvt Ltd

Colonel Inderjeet Singh is the Chief Cyber Security Officer and Head of the Cyber Security Center of Excellence at Vara Technology. In this role, he is instrumental in building the Cyber Security Business Unit for the Group. He is working on the disruptive technologies in the Cyber Security Space for securing IT networks, Smart cities and Critical Information Infrastructure.

He served in the Indian Defence Forces, is Alumnus of IIT Kharagpur and Symbiosis Institute of Management, Pune. He is an experienced Information Systems professional with experience of more than 27+ year across wide spectrum of areas spanning Information Security, Risk Management, Cyber Security, Cyber Forensics, Cyber Warfare, Cyber Terrorism, Expertise in SOC and CERT, Internet of Things (IoT) including IoT Security, Blockchain and Cryptonomics, Machine Learning and artificial Intelligence and Smart Cities.

He has held prestigious appointments while in Indian Army and has been CIO of E-Commerce Company. He has also served in United Nation Mission in Democratic Republic of Congo.

He is visionary for Start-Up Incubation, Entrepreneurship Development, Strategic Consulting and New Technology Evaluation for commercial viability. He is a Subject Matter Expert on latest innovative Technological domains and effectively managed mission critical projects

He has consistently delivered mission-critical results in the field of in Information Security Management, Cyber Security, Cyber Warfare and Cyber Risk Management.

He is a Council Member of CET (I) and fellow of IETE, IE, Member CSI and Executive Council Member Society for Data Science, Member Information Systems Audit and Control Association (ISACA), IEE, ISOC,IOT for Smart Cities Task Force (IoT4SCTF),Cloud Computing Innovation Council of India (CCICI), Internet Engineering Task Force (IETF), USI and many other professional bodies.

He has been consistently been awarded while in Army and was awarded **"Magnificent CIO of the Year "Award in year 2016 and Excellence Award in Cyber Security by International Police Commission in 2019.**