DATA SCIENCE UPSKILLING BOOTCAMP

Value Creation with Data Science for Professionals

(An initiative of the <u>SMART Talent Transformation Approach</u>)

Class Day & Time:	Monday to Friday, 15th - 19th November 2021.
Class Location:	Online.
Prerequisites:	Installations, configurations of tools, technologies, and video links will be provided.
Course Materials:	Materials will be shared during and after the workshop.
Cost:	No charge. This workshop will be delivered FREE of charge.

The WA Data Science Innovation Hub (WADSIH), in conjunction with Halliburton and supported by NERA and METS Ignited, is pleased to offer a FREE interactive and hands on data science bootcamp for industry professionals working in a SME or startup. As organisations begin to collect more and more data, it is imperative that they have the skills to know how to generate insights and business value from this data. We are offering **10 free places** on this bootcamp to professionals working in Western Australian SME or startup companies. Participants will be chosen based on their responses to our online expression of interest form – we are seeking engaged and determined professionals who can take full advantage of this course to drive business outcomes in their organisations.

The bootcamp will be facilitated and led by Dr. Satyam Priyadarshy, Technology Fellow and Chief Data Scientist, Halliburton and Adjunct Professor, Oklahoma State University. His team of data scientists will also cover some of the topics during the course of the bootcamp. Facilitators will work closely with this small group of participants to upskill them in the key areas of data science relevant to the participants' organisations.

Bootcamp Description

We live in Industry 4.0 era, which relies on big data analytics. For meaningful big data analytics, we need experienced and knowledgeable Data Scientists, however, there is a global lack of talent. Despite this, there are very experienced domain experts already within organisations. We have the opportunity to transform that talent to think, work, and create value like a Data Scientist and improve their data science skillset through a proven SMART approach to talent transformation. In the last two years, Halliburton have graduated 300+ professionals globally through a series of bootcamps on Big Data and Data Science, empowering them to leverage data science skills in their jobs.

Bootcamp Schedule

The bootcamp will consist of 3 x one hour sessions per day, Monday through to Friday (15 hours total). A number of interactive quizzes will be implemented throughout. Data for various exercises will be provided, except for the project execution, whereby attendees will be encouraged to provide their own data. During the sessions we will leverage tools such as R, Python, PowerBI, and Opensource Visualizations (D3.js or similar).

Submit your Expression of Interest

Participants are required to apply via the **Expressions of interest Form**. Applications close Monday 25th October 2021 at 5.00pm AWST. Places are limited to 10 participants.

Note: You must be available from Mon 15th to Fri 19th November 2021 to participate in this upskilling program.

Bootcamp Schedule

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Topics covered	**Data Science** • Introduction • Economic impact • Challenges • Roadmap for value creation • Business problem definition/approach • Project assignment	**Artificial Intelligence/ Machine Learning** • Fundamentals • Algorithms, Supervised, Unsupervised, Reinforcements • Interpreting • How to communicate?	**Data Journey** • Discovery • Loading • Exploratory analysis • Quality • Filtration • Readiness • Preparation • Visualization	**Model Journey** • Which one? • Evaluating • Validating • Interpreting • Exploratory analysis • Quality • Filtration • Readiness • Preparation • Visualization	**Digital Journey** • Project execution/ presentation • Historical data models to field ready model- How? • Pitfalls to avoid • What next? • Intermediate workshop
Hands-on activity	R / Python Basics	Clustering/Linear Regression/Neural Networks	Exercises to understand above steps including normalisation, partition etc.	Unstructured data; Log data, Event predictions; Comparative study of models	
Review	Topics of interest	Additional material	Data challenges	When to stop	Next steps

About the Facilitator

Dr. Satyam Priyadarshy is a highly sought out transformational leader for his expertise in leveraging disruptive technologies, solutions, strategies and talent transformation to grow businesses, enterprises, and organisations.

He is a globally recognised leader with a breadth of scientific knowledge, in-depth technology experience, and an extensive business acumen. He is recognised as the first Chief Data Scientist of the oil and gas industry and is a Technology Fellow and Chief Data Scientist at Halliburton. He brings with him the entrepreneurial nature of transforming businesses through an innovative approach and is often referred to as a Venture Idealist.

Some of his recent recognitions include:
- One of the top 150 Global Influential Leaders recognized for leading digital business transformation – BT150
- Constellation Research (2019 - present).
- Member, Mauritius Artificial Intelligence Council, Government of Mauritius (2019 – present)
- The Guru of AI, Big Data and Analytics - The DEW Journal (a flagship journal of Energy)
- One of the top 50 Leaders as movers & shakers in Data & Analytics in US and Canada (Corinium Global Intelligence)
- Key innovator on the leading edge of digital transformation - Smart Industry

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