Applied Business Intelligence: Making Sense of Data Visualization

Course Proposition and Executive Summary

According to recent scholastic studies conducted in the space of data science, one of the key skillsets a data analyst must possess is that of the ability to communicate analytical findings in a simple and easy to understand manner; and with more than 90% of all Fortune 500 Companies Worldwide using some form of business intelligence and visualization tools to help them make better sense of their data, and thereby achieving unparalleled competitive advantages, presenting data and information in a visually compelling manner has never been more relevant and pressing. From univariate to multi-dimensional graphical aid, visual communication has come a long way, especially with the recent developments in the data visualization space. Building of interactive and customizable visual dashboards for collaborative sharing and reporting purposes will also be covered in this course, with a component on sentiment analysis using visualization techniques to make better sense of textual data which contains emotions. Ethical considerations of data visualization and analysis will also be shared to provide participants with a different perspective and lens for making data-driven decisions. Discover how you can realize the *Power of Analytics* through the lens of data visualization by creating engaging business intelligence reports in an easy-to-understand manner in this 2-day course.

In this course, we seek to equip participants with the knowledge and skills of data visualization techniques and principles, highlighting used case scenarios and case studies throughout the course to deepen the participants' understanding through real life applications.

Course Content

- Introduction to Business Intelligence (BI) and Data Visualization
    - Business Analytics and Business Intelligence tools and techniques
    - What are infographics and how you exploit them
    - How to visualize and create charts that:
        - show differences
        - exhibit trends
        - exemplify statistical relationships
- Principles of Business Intelligence (BI) and Data Visualization
    - Methodology and Guided Processes
    - Best practices for visualizing data
- Making Sense of Graphs and Charts: Storytelling with Data Visualizers
    - Applications of Univariate Graphs
    - Applications of Bivariate Graphs
    - Applications of Multivariate Graphs
- Building Dashboards for Visualization Insights and Reporting Purposes
    - Storyboarding with data visualizers
    - Setting thresholds, limits and alerts
    - Interactive dash-boarding with customization and collaborative sharing
- Special Topic: Text Analytics Visualization
    - Sentiment analysis: Building engaging visuals to represent emotions
- Ethical considerations for data visualization
    - Best practices and guided principles
    - Pitfalls to avoid

*The course will be conducted with computer-aided data analysis software and participants will get a chance to see how analytics are being applied in real-life scenarios.

Who is this course for?

Specially designed for beginners in the space of data visualization, business analysts, data analysts, researchers and executives will find this course useful and relevant in highlighting the necessary elements and understanding of various aspects of data visualization in terms of presenting and communicating data insights from the otherwise mono-dimensional data in an intuitive and engaging manner.

Participants who may not have the relevant training will find this course useful and enriching, while those who may have some training or working experience in this area will find this course offering fresh insights into the area of data visualization and business intelligence.

Pre-requisite

Participants should generally be comfortable with quantitative discussions, applications and working with a computer-assisted graphical user interface (GUI) visualization tool.

Mode of Assessment

Participants are required to sit for an open-book quiz where participants will be graded in accordance to the course objectives to ensure they are met in a practical way.

Price Schedule

SGD$890/pax

Certificates/Awards

Certificate of Performance/Achievement will be awarded if participant satisfies the course criteria.

Profile of Trainer

Mr. Ng Jinsheng joined IBM SPSS in 2008 as an Executive in Training and Consulting after his graduation from the National University of Singapore (NUS) with a Degree in Statistics and Applied Probability. During his stay in IBM SPSS, he has trained hundreds of participants from the public service and private sector in statistical and data mining concepts, tools and applications in solving business problems. He has also led consulting projects and worked with C-level executives in addressing pressing business issues during which he received numerous praises and testimonies. During his working with IBM SPSS, Mr. Ng Jinsheng also completed his Masters of Science in Knowledge Management [M.Sc(KM)] from the Nanyang Technological University (NTU) and graduated one of the top in his cohort with a Dean's List award in academic excellence. He later joined SAS Institute as an Education Specialist in the Training department, and thereafter as a Senior Associate in professional Consulting services.

An academic paper he has co-authored was nominated for the Best Paper Award in the 20th International Conference on Computers in Education (2012). He is currently a founding member of AnaVantage Management Consultancy LLP, and lectures and trains at Tertiary Institutions in Singapore in the area of business statistics, data mining and analytics, and develops analytics courses for undergraduate programmes in Singapore. He is also an IBM Business Analytics Certified Specialist in IBM SPSS Modeler (Professional) and IBM SPSS Statistics, as well as SAS Certified Predictive Modeler using SAS Enterprise Miner and SAS Certified Business Analyst using SAS 9: Regression and Modeling.

Professionally as a Trainer, Jinsheng possessed an Advanced Certificate in Training and Assessment (ACTA) conferred by the Workforce Development Agency of Singapore (WDA) and a proud recipient of the prestigious "Excellence in Teaching" Award (EIT) conferred by the Singapore Polytechnic (SP) during the Annual Excellence in Teaching and Training Convention 2015. He is also conferred the title

of an *Associate Adult Educator* by the Institute of Adult Learning (IAL) in 2016, an Adult Educators' Professionalisation recognition which awards pedagogical and professional excellence.