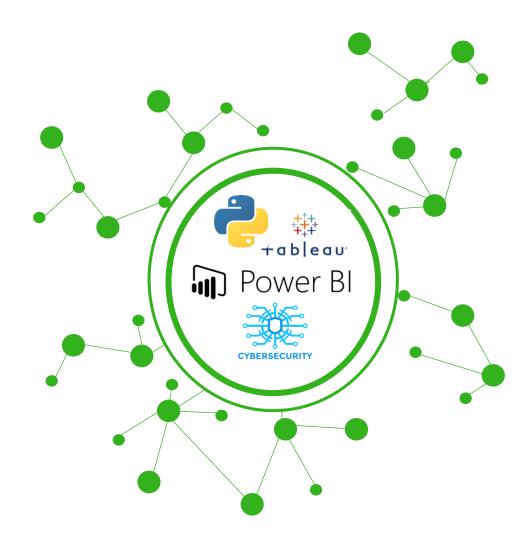


SYLLABUS



Visual Analytics with Python & Power Bl

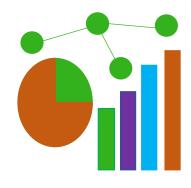
Beginner's Online course Learn how virtual analytics can help us develop a dashboard and report that answers business problem question.





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The DataKirk



With the DataKirk we teach you the skills that you need in order to succeed in the rapidly changing world of Data and Virtual Analytics.

By teaching you to leverage data and the latest technologies to drive better business outcomes, we enable you to claim the strategic impact that you deserve.

Virtual Learning

When you attend a training in our online classroom, you're experiencing all of the benefits of traditional classroom training, but with added flexibility and convenience

With Virtual Classroom, you learn from a live instructor who is trained to keep you engaged and focused, even when you're not in the room. The end result is an interactive and immersive learning experience.

BENEFITS OF VIRTUAL INSTRUCTOR-LED TRAINING



Virtual Classroom Live Instructors are the same subject matter experts who lead our Classroom courses.



Access open source virtual environment to reinforce skills with hands-on activities.

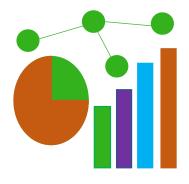


Instructor and peer interaction are seamless in our online classroom environment.



Train without travelling by accessing our virtual training from your home anywhere with an internet connection.

COURSE OVERVIEW

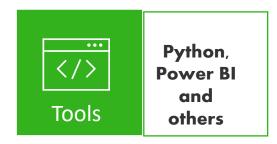




OVERVIEW











FRAMEWORK

The demand for visual analytics in business processes, for quick and informed decision-making, is ever increasing.

The high-end features from Tableau / Microsoft Power BI and DAX, which are "similar" to those offered in Microsoft Excel, have made the process of building dashboards easier.

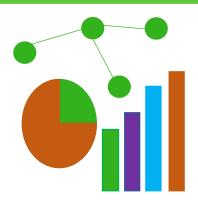
Exploration of some of Python's best visualisation libraries can help us transform visual exploration of data into an essential part of our workflow

Visual Analytics is the science of analytical reasoning supported by interactive visual interfaces. Today, data is produced at an incredible rate and the ability to collect and store the data is increasing at a faster rate than the ability to analyse it.

Visual Analytics can be seen as an integral approach combining visualisation, human factors, and data analysis.



WHAT YOU GET





Videos lessons



Reading materials & life skills



Challenges & Projects



Digital certificate upon completion

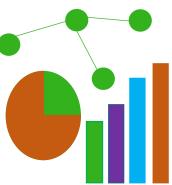


REGISTRATION



No prior knowledge or courses are required in order to register to participate in this learning path.

WHO SHOULD TAKE THIS TRAINING





LEARNERS

This training Visual Analytics with Python and Tableau /
Power BI is designed for anyone interested in pursuing a career in Data Analytics or similar related roles.

You will learn how dashboard and reports can help us provide insights and address the trends impacting businesses.

If you recognise yourself in one of the four personas below, this training is certainly the right fit for you:

If you are keen to learn new skill and desire to become data savvy If you are a professional desiring to upskill for promotional purpose

If your job is at risk and ready to acquire the skill for the job of tomorrow

If you are looking to understand what trends are affecting your workplace and business

^{*} The training is also relevant if you don't aspire any specific role but simply want to acquire more in-depth knowledge and skills about visual analytics





Learn the basics of visual analytics and how analysts adds value through analytics

Learn the basics of the ETL (extract, transform, load), analytics, statistics, and data mining process

Acquire the relevant knowledge to coordinate and communicate with stakeholders

Learn about the various applications of analytics and develop the skills for the jobs of tomorrow

Learn how to present data visually, numerically and most importantly telling story with data.

Learn how to use data analysis tools to generate insights and informed decision making

Acquire basic knowledge of every step in the 'Data cycle' and learn to manage the process.

WHO YOU WILL LEARN FROM





Ed Antonian

Ed is a lead mentor at the DataKirk. Ed is a computer science PhD student working on applications of machine learning and data science in finance. He is passionate about maths and coding with the aim of getting more people excited about these important subjects.



Dr Pawel Orzechowski

Dr Pawel Orzechowski is a Senior Teaching Fellow in Programming for Business at the University of Edinburgh, specialising in Business Analytics and Python Programming. He is passionate about transforming the disadvantaged people with skills that would empower them through upskilling and reskilling



Toriola Coker

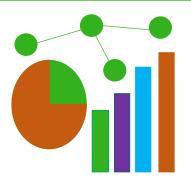
Toriola Coker is a Senior Consultant in Data Analytics for Ernst Young, He is passionate in the delivery of Data Science / Engineering training, with over 600 training classes and multiple Data Science/Data Engineering tools trainings delivered.



MODULE 1

INTRODUCTION TO VISUAL ANALYTICS

- 1: The Virtual Analytics Context
 - Why Visual Analytics is transforming business
 - Best Practices
 - Collaborative problem solving
 - Deployment considerations
- 2: Introduction to Python
 - Python Basics
 - Python Data Structures
 - Lists and Tuples
 - Sets and Dictionaries
 - Labs
- 3: Python Programming Fundamentals
 - Conditions and Branching
 - Loops
 - Functions
 - Objects and Classes
 - Labs
- 4: Working with Data in Python
 - Reading files with open
 - Writing files with open
 - Loading data with Pandas
 - Working with and Saving data with Pandas
 - Labs
- Quiz
- Course & reading materials
- Lab / Project



MODULE 2

HOW VISUAL ANALYTICS CAN HELP US

- 1: Examples of Visual Analytics in Python
 - Visualisation with Matplotlib
 - Basic plotting with Matplotlib
 - Dataset on Sales
 - Labs
- 2: Advanced Visualisation Tools
 - Visualisation with Seaborn
 - Plotting with Seaborn
 - Dataset on Sales
 - Labs
- 3: Exploring and Analysing Network data
 - Introduction to Networks
 - Structures
 - Importance of Node
 - Bringing it all together
 - Labs
- 4: Example of Social Network Analysis
 - Introduction to NetworkX
 - Types of graph used for social network analysis
 - Analyse social networks like Facebook and Twitter
 - Labs
- Quiz
- Course & reading materials
- Lab / Project



MODULE 3

VISUAL ANALYTICS WITH POWER BI

- 1: Explore Power BI data
 - Using Excel as a Power BI data source
 - Using databases as a Power BI data source
 - The Power BI service
 - Labs
- 2: Applying shaping and combining data techniques
 - Power BI desktop queries
 - Shaping data
 - Combining data
 - Labs
- 3: Applying modelling data skillset
 - Relationships
 - DAX queries
 - Calculations and measures
 - Labs
- 4: Develop interactive data visualisations
 - Creating Power BI reports
 - Managing a Power BI solution
 - Labs
- Quiz
- Course & reading materials
- Lab / Project



MODULE 4

VISUAL ANALYTICS FOR CYBERSECURITY

- 1: Security Machine Data
 - What is machine data?
 - Using Splunk as a cybersecurity tool
 - Visualisations in Splunk
 - Labs
 - 2: Project
 - Introduction to The DataKirk Projects
 - Support from Mentors
 - Presentation

Quiz

Course & reading materials

Lab / Project





Why should I enroll?

The world of work is rapidly changing, and technology can help us address the challenges that come with it. If you would like to understand the value and advantages of virtual analytics, this is the right course for you.

Is this training the right fit for me?

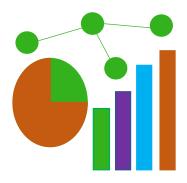
If you want to be actively involved in the future of work, this is the right course for you.

Are there any prerequisites?

There are no prerequisites for this training. No prior knowledge is required. The course does not go into the mathematics behind the technology, so everyone can take this course.

Do I need to pass an exam to finish the training?

No, but you will have projects in the training through which you will put your skills to practice



Contact us

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Edinburgh

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