

## Data Science and **Machine Learning** for Beginners

A 2-day training course that introduces the latest theories, tools, techniques and strategies to apply and manage data science and machine learning capabilities at an individual, team or organisational level. It's aimed at professionals who want to start working in analytics, professionals who want to enhance their skills in analytics or leaders who need to successfully manage a data science capability in their organisation.

21 - 22 May 2019 Melbourne 25 - 26 June 2019 Sydney 8 - 9 October 2019 Perth



## **Key Learning Objectives**

- Develop basic yet practical working knowledge in data science and machine learning
- Master key concepts and techniques to build machine learning models using big datasets
- Discover how to structure your dataset in order to build advanced analytics
- Explore the latest use cases and applications of machine learning
- Develop an understanding of a programming languages for data science
- Learn how experts collect, wrangle and manipulate data for effective data science
- Learn to build and manage a successful data science and analytics capability in your organisation
- Develop technical and soft skills required to manage a team of data scientists



#### **Felipe Rego** Data Science & Analytics Partner

Felipe is a leading advanced analytics and data science partner, working with teams in a range of different organisations and helping them build, manage and enhance their data science and visualisation solutions. Strategically aligned, commercially oriented and above all, customer centred, Felipe's unique methodologies help organisations stay competitive and create a solid pathway for future growth.

## www.informa.com.au/datascienceandmachinelearning

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### **ABOUT THE COURSE**

If data is the new 'Oil' of the 21th century, data science and machine learning are the 'engine' behind it. Learning how to apply and manage data science and basic machine learning techniques is becoming another important skill in the data-driven economy. This course provides the latest concepts, tools and techniques to build and influence the development of a successful data science and machine learning capability. Delivered through an interactive approach utilising the latest tools, participants of this course are exposed to basic techniques of data science, algorithms and machine learning, basic applied statistics and some of the most utilised cloud and open source tools that powers the world of advanced big data analytics. Participants are also exposed to the latest thinking in data strategy and managing data science and analytics teams and projects.

#### WHO WILL BENEFIT

Anyone who wants to understand the role data science and analytics plays in driving competitive advantage in teams and organisations but have not had any (or major) exposure to the field. It can also be beneficial to those who want to pursue a change in career and work more closely with advanced analytics, data science and machine learning capacity but have not had a chance to figure out how to go about it. Lastly, it can benefit anyone who works (or manages a team) in a business or technical role and uses data to answer questions, solve problems or build data-driven solutions but want to have a different perspective in the field.

## **EXPERT COURSE INSTRUCTOR**



Felipe Rego, Data Science & Analytics Partner

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Felipe has a unique combination of in-depth technical expertise (including developing code and programming in analytical tools) and a high level of business experience with over a decade working in analytics teams, marketing, research and business strategy. This allows him to identify and understand the issues that impact his clients' businesses and translate them into the complex language of analytics and data science to find the best solutions. Because of this, Felipe is highly in demand with marketing, sales, finance, technology and strategy teams. He excels at delivering robust analytical solutions that are easy to use, understand and implement. Felipe's unique methodology takes a holistic approach to using data and science to improve whole organisational performance and reduce costs.

Felipe is also an analytics instructor with experience disseminating practical, actionable advanced analytics and data visualisation techniques in both classrooms and online settings. The organisations he works with find that partnering with Felipe results in a more engaged and capable workforce. It's not just the organisation as a whole that benefits - individuals feel more prepared to step up to their next challenge and confidently make use of data and analytics in their day-to-day work.

When Felipe is not partnering with clients or helping students, he's a research candidate in Learning Analytics at The University of Sydney. As part of his research, Felipe makes sense of students' digital traces and looks at the role learning analytics dashboards play in influencing learning outcomes. His research has also been focused on exploring patterns of students' engagement and performance profiles in learning environments.

Alongside all this, Felipe is also a blogger, writing regularly on a wide range of topics including predictive analytics, statistical learning and data visualisation. Recognised internationally for his thought leadership, Felipe received over 82,000 visitors to his blog from over 180 countries last year and some of his articles have been ranked #1 in Google search. Felipe is widely referenced by many sources and leading educational institutions including StackOverflow, Udacity, Western Michigan University, UC Santa Barbara and Edinburgh Napier University among others.



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## 2-Day Intensive Course Outline

## **DAY ONE**

## Data science and machine learning history and fundamentals

- Explore the fundamentals and historical developments of data science and machine learning
- Showcase and explain in layman's terms the latest trends and hot topics in analytics
- Discuss and define a variety of concepts and use cases in data science and machine learning

## Organisational structures, roles and technology considerations in data science

- Learn about how organisations are structuring themselves for analytics
- Introduce and clarify roles, tools, techniques and tactics needed in data science
- · Discuss job opportunities and skills needed in the marketplace

## Building and managing a successful data science capability in your organisation

- Making sense of your organisation's analytics capability and maturity
- Plotting a roadmap from business strategy to data science realisation
- Understanding of what makes organisations do data science and machine learning right

## Data visualisation and action-oriented data storytelling to communicate results

- Contextualise and define concepts in data visualisation for data science and analytics
- Showcase and explain in layman's terms the latest trends and hot topics in data visualisation
- Learn about the latest tools and techniques to create compelling visual data storytelling

## **DAY TWO**

### Fundamentals of applied statistics for data science

- · Explore introductory concepts in statistics and probability
- Contextualise differences between supervised and unsupervised learning, regression vs classification models, etc.
- Explore sampling, bias, data quality and other issues affecting machine learning models

## Introduction to descriptive and predictive analytics in practice

- Explore and work through an exploratory data analysis (EDA) exercise
- Introduce and apply a machine learning model to a basic and simple dataset
- Utilise a popular business tool to interpret and summarise the results of a predictive model

## Interactive and scalable data science and analytics solutions

- Introduce and work through a basic supervised learning model using R and Jupyter Notebooks
- Introduce and work through a basic unsupervised learning model using R and Jupyter Notebooks
- Introduce and work through a basic supervised learning model using a machine learning solution in the cloud

### Data science and machine learning in action

- · Revisit main themes, tools, techniques and strategies
- Build a practical action plan to apply learnings to your organisation
- · Group discussion, final reflections and insights

#### Would You Like To Run This Course On-Site?

## Informa Corporate Learning: On-site & Customised Training

If you have **8+** interested people, an onsite course can be an ideal solution. Speak with **Anton Long** or **Holly Baldwin** on **+61 (02) 9080 4454** to discuss your customised learning solution, or email **training@informa.com.au** 



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## **Easy Ways to Register**





#### Web

www.informa.com.au/datascienceandmachinelearning











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## Telephone

+61 (02) 9080 4395



#### Email

training@informa.com.au

## Data Science and Machine Learning for Beginners

	Location	Course Dates	Super Early Bird price valid until ME - 12 Apr 19 SY - 17 May 19 PE - 30 Aug 19 BR - 20 Sept 19 CA - 18 Oct 19		Early Bird price valid until ME - 3 May 19 SY - 7 Jun 19 PE - 20 Sept 19 BR - 11 Oct 19 CA - 8 Nov 19		Standard price valid after ME - 3 May 19 SY - 7 Jun 19 PE - 20 Sept 19 BR - 11 Oct 19 CA - 8 Nov 19		4+ Dels Discount	
P19GR28ME	Melbourne	21-22 May 19	\$1,495 + \$149.50 GST	\$1,644.50	\$1,695 + \$169.50 GST	\$1,864.50	\$1,795 + \$179.50 GST	\$1,974.50	\$1,356 + \$135.60 GST	\$1,491.60
P19GR28SY	Sydney	25-26 Jun 19	\$1,495 + \$149.50 GST	\$1,644.50	\$1,695 + \$169.50 GST	\$1,864.50	\$1,795 + \$179.50 GST	\$1,974.50	\$1,356 + \$135.60 GST	\$1,491.60
P19GR28PE	Perth	8-9 Oct 19	\$1,495 + \$149.50 GST	\$1,644.50	\$1,695 + \$169.50 GST	\$1,864.50	\$1,795 + \$179.50 GST	\$1,974.50	\$1,356 + \$135.60 GST	\$1,491.60
P19GR28BR	Brisbane	28-29 Oct 19	\$1,495 + \$149.50 GST	\$1,644.50	\$1,695 + \$169.50 GST	\$1,864.50	\$1,795 + \$179.50 GST	\$1,974.50	\$1,356 + \$135.60 GST	\$1,491.60
P19GR28CA	Canberra	26-27 Nov 19	\$1,495 + \$149.50 GST	\$1,644.50	\$1,695 + \$169.50 GST	\$1,864.50	\$1,795 + \$179.50 GST	\$1,974.50	\$1,356 + \$135.60 GST	\$1,491.60

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## Informa Corporate Learning - On-site & Customised Training

Informa Corporate Learning has a long-standing track record of delivering very successful customised learning solutions achieving real and measurable value for our clients through our senior training consultants.

If you have 8+ interested people, an on-site course can be the ideal solution – giving you the opportunity to customise our course content to your specific training needs, as well as attracting significant savings compared to public course costs.

#### Why Choose On-site With Informa Corporate Learning?

- Custom design Together, we will identify the best blended learning solution for your culture, your people and your training objectives.
- 2. Quality assured We design market-leading training programs, concepts and methodologies, with a 400+ course portfolio. Our rigorously selected 900+ instructor faculty are recognised experts in their field. Quality of their content and delivery methods is assured through continuous monitoring and evolution.
- 3. On-site training is a cost effective way to train your people and achieve your defined outcomes.

#### **Our Long Standing Clients Include:**

Ambulance Victoria, BHP, Department of Planning, Transport & Infrastructure, SA, Origin Energy, Electricity Generating Authority of Thailand (EGAT), ActewAGL, Ajilon, Arrow Energy, Barrick, Chevron Australia, Coffey International, ConocoPhillips, Dalrymple Bay Coal Terminal, Department of Education, ENI Australia, Fortescue Metals Group, IBM, Jemena, Office of the National Rail Safety Regulator, Pacific National, PT Freeport, Public Transport Authority – WA, QGC – BG Group, Rio Tinto, UBS, Woodside, IP Australia, ANU, Health Purchasing Victoria, Telstra, Queensland Rail, EY, Litmus Group, and more...

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