Exordium, The Machine Learning Bootcamp

"A true multidisciplinary bridge bringing applied Machine Learning to your domain where maths and programming are forbidden. Only visuals, imagination and common sense are allowed"

Our world generates more data than ever before! To turn it into useful insights is a crucial skill. This course introduces you to practical data mining. We will unlock the mystery that surrounds the subject. We will explain the journey of data understanding, cleaning, dealing with missing data and outliers, data visualisation, pre-processing, creating your own predictive models with popular algorithms and model's evaluation.

Exordium goes back to the absolute beginning time; the concept of learning. During the course, we will coach you on how to use the techniques in a practical case study, for you to apply your new skills on the fly. We balanced the content; we empowered the course with analogies, strong visuals and less text. You will read less and think a lot! You will rely purely on your common sense, imagination and strength of observation skills to see it, know it and try it.

There is no mathematics or formulas, just logic and simple mental arithmetic here and there. There is no coding (No programming), just mouse clicks with your fingertips! The course is aimed at multidisciplinary participants from all schools in humanities, life sciences, cities and architecture, law, business, arts and others to take part. Afterwards, you will be well equipped to create machine learning models of your own.

What topics will you cover?

- What is Natural Intelligence and Artificial Intelligence?
- What are the key areas in Artificial Intelligence and real-life applications?
- What are the key areas in Machine Learning and real-life applications?
- What is supervised Machine Learning and how it works?
- A learner, an algorithm and a model; what is the difference?
- Let's talk data and machine learning like the experts
- Introduction to WEKA machine learning framework
- Work like a data scientist with hands-on case study and tasks
- How to access, understand, and format your data?
- Define the modelling problem and unlock machine learners' abilities.
- What does your data tell you? How to visualise data to observe the trends?
- How to deal with missingness, inconsistent magnitudes, errors, outliers and extreme values?
- Find useless data: How to use Information Theory and Statistics to select variables for modelling?
- Caution! The three words; association, correlation and causation; use them with care.
- The process of learning: What happens in training, testing and validation?
- The curse of overfitting! The bless of validation! The almighty testing!
- How do lazy, decision trees and deep learning algorithms work?
- Build and test your First Machine Learning Model.
- Assess the learning process: How to evaluate your machine learning model's performance.
- Make future predictions for new data with machine learning models.
- What ethical considerations arise when mining data?

Course Time Plan:

The course is divided in three Parts, each having a morning and an afternoon session for you to choose from. You need to register for a session in each of the three parts.

First Run (Engagement week 26/10/2010)

Wednesday October 28th

Part 1: The Beginning - Understanding the Concept of Machine Learning

Session 1: 10:00 to 13:00

Session 2: 14:30 to 17:30

Thursday October 29th

Part 2: Preparation to modelling - Data Cleaning and Pre-processing

Session 1: 10:00 to 13:00

Session 2: 14:30 to 17:30

Friday October 30th

Part 3: Machine Learning Algorithms - Modelling and Evaluation

Session 1: 10:00 to 13:00

Session 2: 14:30 to 17:30

Pease note that you must download and install the software WEKA 3.8 available for Windows, Mac or Linux from https://www.cs.waikato.ac.nz/ml/weka/ prior to attending any session.

Meet your tutor Mahmoud Aldraimli from the

Click on the image below to reserve your place.