

# The Big Data & Analytics Summer School Programme 2018

Whilst you have complete flexibility on which courses to attend, the above programme has been colour-coded into categories, which you might find useful when selecting your courses:

|                          |                         |
|--------------------------|-------------------------|
| Data Science - Core      | Specific Data Platforms |
| Data Science - Specialty | NLP                     |
| Big Data                 | Legal                   |
| Decision Making          | Neural Networks         |

*A detailed course list with provider details, course abstracts, and preparatory information accompanies this document.*

| WEEK 1                     | Monday 23 July  |   |                         |  | Tuesday 24 July   |   |                         |   | Wednesday 25 July                                       |   |                         |   | Thursday 26 July |   |                         |   | Friday 27 July                |                                    |   |   |
|----------------------------|---|---|-------------------------|--|---|---|-------------------------|---|---|---|-------------------------|---|------------------|---|-------------------------|---|-------------------------------|------------------------------------|---|---|
| 08.00-09.00                | Registration: Week 1 & Both Weeks<br><i>EBS2.46</i>         |   |                         |  |   |   |                         |   |   |   |                         |   |                  |   |                         |   |                               |                                    |   |   |
| 09.00-10.30                | Learning Under Different Training and Testing Distributions | Encounters with Big Data: Using Big Data in Social Sciences (1/4) | Introduction to R (1/4) |  | Financial Analytics: From foundations to practice (1/2) | Encounters with Big Data: Using Big Data in Social Sciences (2/4) | Introduction to R (2/4) | Visual recognition and tracking in large image and video datasets | Financial Analytics: From foundations to practice (2/2) | Encounters with Big Data: Using Big Data in Social Sciences (3/4) | Introduction to R (3/4) | Introduction to Natural Language Processing |                  | Encounters with Big Data: Using Big Data in Social Sciences (4/4) | Introduction to R (4/4) | Practical Text Analytics & Sentiment Analysis from Social Media | Learning from Small Data Sets | Hadoop: Fundamentals for the Cloud | Introduction to the Modelling and Analysis of Complex Systems | Introduction to the Vertica Analytic Database |
| BREAK:<br><i>EBS FOYER</i> |   |   |                         |  |   |   |                         |   |   |   |                         |   |                  |   |                         |   |                               |                                    |   |   |
| 10.30-11.00                |   |   |                         |  |   |   |                         |   |   |   |                         |   |                  |   |                         |   |                               |                                    |   |   |
| 11.00-12.30                |   |   |                         |  |   |   |                         |   |   |   |                         |   |                  |   |                         |   |                               |                                    |   |   |
| LUNCH:<br><i>EBS FOYER</i> |   |   |                         |  |   |   |                         |   |   |   |                         |   |                  |   |                         |   |                               |                                    |   |   |
| 12.30-13.30                |   |   |                         |  |   |   |                         |   |   |   |                         |   |                  |   |                         |   |                               |                                    |   |   |
| 13.30-15.00                |   |   |                         |  |   |   |                         |   |   |   |                         |   |                  |   |                         |   |                               |                                    |   |   |
| BREAK:<br><i>EBS FOYER</i> |   |   |                         |  |   |   |                         |   |   |   |                         |   |                  |   |                         |   |                               |                                    |   |   |
| 15.30-17.00                | <i>CSEE L2</i>  | <i>EBS 2.1</i>  | <i>CSEE L4</i>          |  | <i>EBS 2.45</i>   | <i>EBS 2.1</i>  | <i>CSEE L4</i>          | <i>CSEE L1</i>  | <i>EBS 2.45</i>   | <i>EBS 2.1</i>  | <i>CSEE L4</i>          | <i>EBS 2.66</i>                             |                  | <i>EBS 2.1</i>  | <i>CSEE L4</i>          | <i>EBS 2.66</i>   | <i>CSEE L2</i>                | <i>CSEE L4</i>                     | <i>EBS 2.66</i>   | <i>CSEE L1</i>                                |
| 17.15-18.00                | Opening Speech<br><i>EBS 2.2</i>                            |   |                         |  | Keynote Event 1<br><i>EBS 2.2</i>                       |   |                         |   | Keynote Event 2<br><i>EBS 2.2</i>                       |   |                         |   |                  |   |                         |   |                               |                                    |   |   |
| 18.00-20.00                | Evening Reception<br><i>EBS Foyer</i>                       |   |                         |  |   |   |                         |   | IADS Speed Networking<br><i>EBS Foyer</i>               |   |                         |   |                  |   |                         |   |                               |                                    |   |   |

| WEEK 2                     | Monday 30 July  |  |                                       |  | Tuesday 31 July                  |  |                                       |  | Wednesday 1 August  |  |                         |                         | Thursday 2 August   |  |                               |  | Friday 3 August                        |  |  |  |
|----------------------------|---|--|---------------------------------------|--|----------------------------------|--|---------------------------------------|--|---|--|-------------------------|-------------------------|---|--|-------------------------------|--|--|--|--|--|
| 08.00-09.00                | Registration for Week 2 Only<br><i>EBS2.46</i>                          |  |                                       |  |                                  |  |                                       |  |   |  |                         |                         |   |  |                               |  |  |  |  |  |
| 09.00-10.30                | Data Protection, Security, Ethics, and Liability in the Age of Big Data | Artificial Intelligence and Neural Networks in Analytics (1/5) | Optimisation Meets Data Science (1/2) | Introduction to Using the Cloud with Microsoft Azure | Introduction to Machine Learning | Artificial Intelligence and Neural Networks in Analytics (2/5) | Optimisation Meets Data Science (2/2) | Introduction to Databricks: Making Big Data Simple | Personalisation & Recommender Systems in the Era of Smart Cities and Big Data (1/2) | Artificial Intelligence and Neural Networks in Analytics (3/5) | Algorithmic Game Theory | Best Practice Analytics | Personalisation & Recommender Systems in the Era of Smart Cities and Big Data (2/2) | Artificial Intelligence and Neural Networks in Analytics (4/5) | Bandits, Learning, and Search | Traditional & Deep Learning Methods for Word Representations | Classifier Evaluation (Practical in R) | Artificial Intelligence and Neural Networks in Analytics (5/5) | Introduction to Tensorflow and Deep Learning | Learning Under Different Training and Testing Distributions (repeat) |
| BREAK:<br><i>EBS FOYER</i> |   |  |                                       |  |                                  |  |                                       |  |   |  |                         |                         |   |  |                               |  |  |  |  |  |
| 10.30-11.00                |   |  |                                       |  |                                  |  |                                       |  |   |  |                         |                         |   |  |                               |  |  |  |  |  |
| 11.00-12.30                |   |  |                                       |  |                                  |  |                                       |  |   |  |                         |                         |   |  |                               |  |  |  |  |  |
| LUNCH:<br><i>EBS FOYER</i> |   |  |                                       |  |                                  |  |                                       |  |   |  |                         |                         |   |  |                               |  |  |  |  |  |
| 12.30-13.30                |   |  |                                       |  |                                  |  |                                       |  |   |  |                         |                         |   |  |                               |  |  |  |  |  |
| 13.30-15.00                |   |  |                                       |  |                                  |  |                                       |  |   |  |                         |                         |   |  |                               |  |  |  |  |  |
| BREAK:<br><i>EBS FOYER</i> |   |  |                                       |  |                                  |  |                                       |  |   |  |                         |                         |   |  |                               |  |  |  |  |  |
| 15.30-17.00                | <i>EBS 2.45</i>   | <i>EBS 2.66</i>  | <i>CSEE L2</i>                        | <i>CSEE L1</i>                                       | <i>EBS 2.1</i>                   | <i>EBS 2.66</i>  | <i>CSEE L2</i>                        | <i>CSEE L1</i>                                     | <i>CSEE L4</i>  | <i>EBS 2.66</i>  | <i>CSEE L2</i>          | <i>EBS 2.45</i>         |   | <i>CSEE L4</i>   | <i>EBS 2.66</i>               | <i>CSEE L1</i>   | <i>CSEE L2</i>                         |  |  |  |
| 17.15-18.00                | Keynote Event 3<br><i>EBS 2.2</i>                                       |  |                                       |  |                                  |  |                                       |  | Formal Dinner<br><i>7PM-11PM, Wivenhoe House Hotel</i>                              |  |                         |                         | Keynote Event 4<br><i>EBS 2.2</i>   |  |                               |  |  |  |  |  |
| 18.00-20.00                |   |  |                                       |  |                                  |  |                                       |  |   |  |                         |                         | Closing Speech<br><i>EBS 2.2</i>  |  |                               |  |  |  |  |  |