AI Invasion Curriculum : Outline and NoteBooks

| Day | Topic | Subtopics |
|---|---|---|
| 1 | Introductions | Introduction to Data Science Nigeria |
| | What is Data Science, Machine Learning, Deep Learning and Artificial Intelligence? | Definition of concepts:Data Science, Machine Learning, Deep Learning and Artificial Intelligence? |
| | | Deep dive into use cases and importance |
| | | Steps in a Machine Learning project |
| | | Types of Machine Learning algorithms |
| | Introduction to platforms (Anaconda/Jupyter Notebook) and Python Libraries | Installation walkthrough |
| | Mathematics and Statistics review | A Mathematical Introduction to Machine Learning |
| | Statistics and Probability for Machine Learning | Concepts and terms |
| | | Sampling techniques |
| | | Types of Statistics |
| | | Probability |
| 2 | Data wrangling and Exploratory Data Analysis | Data wrangling and analysis |
| | | Exploratory data analysis |
| | | Data cleaning and preparation |
| | Supervised Learning: Introduction to Regression Analysis | Dealing with categorical features |
| | | Regression Analysis |
| | | Concept of Linear Regression |
| | | Assumptions of Linear Regression |
| | | Tree Based Regression |
| | | **Class Activity** |
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| 3 | Supervised Learning: Classification | Comparison of Regression and classification |
| | | Binary classification |