

### **Foundational skills**

- Programming for Data Science (Python)
- Maths and Statistics for Data Science

### **Core Data Science and AI skills**

- Exploratory Data Analysis (EDA) and data wrangling
- Data visualisation
- Database access
- Application Programming Interfaces (APIs)
- Supervised learning (Regression and Classification)
- Unsupervised learning (Clustering and Dimensionality reduction)
- Deep learning
- Natural Language Processing (NLP)
- Artificial Intelligence
- Cloud computing
- Machine learning deployment
- Data science industry practices

# **Applying Data Science in industry**

- Applying data science on different data structures and domains
- Defining a data science project
- Designing a data science project
- Delivering data science project
- Optimising machine learning model algorithms
- Overall end-to-end solution
- Presenting to stakeholders and obtaining buy-in
- Capstone project

#### **Soft skills**

Consulting, Questioning, Critical Thinking, Problem Solving, Documenting, Presenting

## **Learning how to learn effectively framework**

Minimal Viable Learning (MVL), Multimodal learning, Learn-Create cycle