

# **Data Science**

## course.

Learn to code in 9-week full time or 24-week part-time



# Table OfContents

Everything about our data science course.

Overview	3
What you will learn	4
Course Outcomes	5
Course Authors	6
Course Format	7
Detailed Curriculum	8
Our Community	23
Our Online Platform	24
Alumni Jobs	25
Alumni Startups	26
FAQ	27



## **Overview**

Learn data science from Python to advanced Machine Learning, get all the skills to join a data science team and boost your career.

### Think like a data scientist.

From Pandas to Deep Learning, you will finish the course knowing how to explore, clean and transform data into actionable insights and how to implement Machine Learning models from start to finish in a production environment, working in teams with the best-in-class tool belt.

### A lifetime community.

Our data science course is just the beginning of the journey. Once you graduate from Le Wagon, you belong to a global tech community. You keep access to our online platform with all your course content and you belong to an active Slack workspace where you keep learning, receive tips and advice from professional data scientists, access exclusive job and freelance opportunities from entrepreneurs & developers. You also benefit from our career services and we help you connect with the best recruiters looking for talent in data-related roles through networking events, job fairs and coaching.

## Successful graduates.

More than 13,500 alumni have graduated from Le Wagon. Many of them have joined tech companies as engineers, developers, analysts or product managers. A lot of them also have started a career as freelancers or launched their startup, with the most successful raising up to \$83M.



## What you will Learn.

We've been teaching people how to code since 2013 and are committed to excellence. After the bootcamp, you will be able to:

- Design relational databases and build advanced queries with SQL
- Grasp the mathematic concepts behind data science: statistics, probability and linear algebra
- Conduct advanced analysis with Jupyter notebook, Pandas and Statsmodels
- Implement Machine Learning supervised and unsupervised models with scikit-learn
- Learn Machine Learning best practices (preprocessing, training and testing, performance metrics, etc.)

- Deploy Machine Learning models in production with Google Cloud Platform
- Build and train fully connected deep neural networks to solve classification and regression problems
- Master programming applied to Data Science in Python
- Use neural networks for object detection and natural language processing
- Use the best practices when working on a data science project within a tech team



#### World's most acclaimed coding bootcamp

Le Wagon is the world's most acclaimed coding bootcamp, with an average grade of 4.98/5 according to 2000+ student reviews on SwitchUp.



## Course Outcomes.

Learning to explore, clean, analyse and predict data can lead to different paths. Here are the possible outcomes for you once you'll graduate from our data science course:

- Become a data analyst, data engineer, data scientist, or data manager for some of the world's best tech companies (Google, Uber, Getaround, Trainline, Doctolib, etc...).
- Kickstart a career as freelance data scientist helping companies solve their problems with data from wherever you want, and find freelance opportunities through Le Wagon's network and 43 worldwide campuses.
- Launch a data service or product as an entrepreneur, found your company, raise money to accelerate your growth and manage your data science team.



#### World's most acclaimed coding bootcamp

Le Wagon is the world's most acclaimed coding bootcamp, with an average grade of 4.98/5 according to 1800+ student reviews on Course Report.



## Course Authors.

They're professional developers, data scientists and Machine Learning engineers. They've worked for the best tech companies and are passionate about education.



### Sébastien Saunier

CTO, Le Wagon

Sébastien is a software engineer with more than 10 years of experience. He worked at Google & VirtuOz, one of the first companies to build AI conversational bots and has an extended experience building tech curriculums.



## **Mathieu Ripert**

Machine Learning, Instacart

After graduating from Columbia NYC, Mathieu is at the inception of Le Wagon with the two co-founders. In 2014, he joins Instacart in San Francisco as their first data scientist and he is now in charge of the ML team at Instacart!



## Igor Koval

PhD in Deep Learning, applied to neurosciences

Working for the center of applied maths of Ecole Polytechnique and for the research lab at Brain and Spine Institute, Igor loves to use his maths and coding skills to bring impact where it matters, and share his knowledge in Deep Learning with students.



## **Course Format.**

Our bootcamps are available in 9-week full-time or in 24-week part-time. You are free to choose the format that suits you best!

### Full-time (9 weeks)

#### **Courses from Monday to Friday** 400 hours

In 9 intensive weeks, learn Data Science from Python to advanced Machine Learning, get all the skills to join a data science team and boost your career.

### Part-time (24 weeks)

Courses two evenings a week and on Saturdays

400 hours

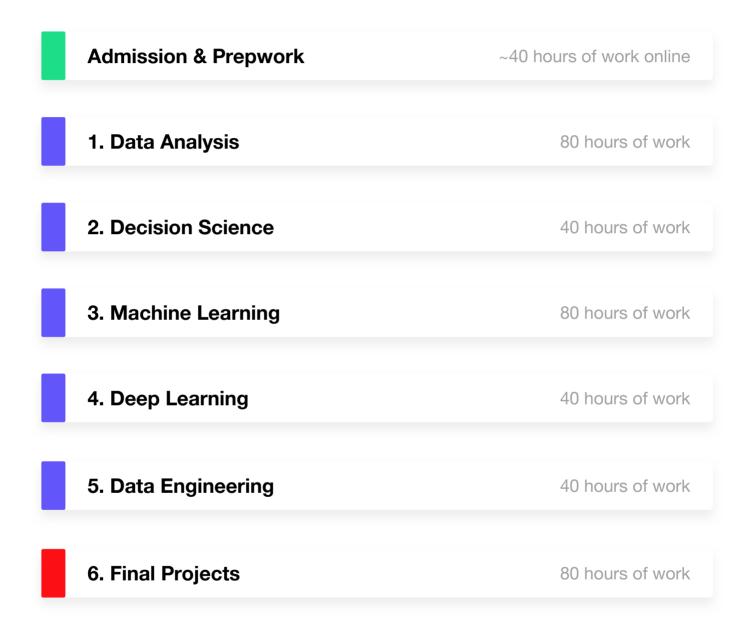
Learn to code in 24-week part-time with a tailor-made program adapted to school & public holidays, and above all to your busy schedule.

This format is **also available 100% Online**, with live courses and real teachers to learn to code wherever you are!



## Detailed Curriculum.

Learn data science step by step, starting with the basic data toolkit in Python and Mathematics to the complete implementation and deployment cycle of Machine Learning algorithms.





## Admission & Prepwork.

~40 hours of online learning resources

Our Data Science course requires a basic level of Python & Mathematics. As we want all of our students to succeed, you'll be able to test your level and refresh your skills before the bootcamp starts.

### **Admission prerequisites in Python & Maths**

#### • Python prerequisites

You'll need to be comfortable with data types & variables, conditions, loops, functions and data structures (List & Dictionary).

• Mathematics prerequisites

You'll need a High School level of Maths, meaning you will be comfortable with functions, derivatives, and systems of linear equations.

#### • Testing your skills

After a chat with our Admissions team, you will receive a Python & Mathematics Quiz to help you and the Admissions team better understand your current level in Python & Maths. We'll also provide you with a set of additional free learning resources to help you match the prerequisite level for the Bootcamp.

### **Post-admission prep work**

Once you have been accepted onto the Data Science bootcamp (congrats!), you'll receive ~ 40h of online learning resources. We require all of our students to complete this before the bootcamp starts, either at their own pace or during our Data Prep Week.

The Data Prep Week takes place the week before the official start date of the Bootcamp. This is an additional week of interactive online learning designed to help you get through this content as efficiently as possible and ensure you have the necessary foundations in Python before the bootcamp starts.

# 1. Data Analysis.

80 hours of work

This module covers the fundamentals of **Python** and **Mathematics** for data science. You'll learn the basics of programming in Python, how to work with **Jupyter Notebook** & **Jupyter Lab**, and will become familiar with powerful Python libraries used in data science, such as **Pandas** and **NumPy**, to explore big data sets and conduct statistical analyses. Additionally, we'll teach you how to collect data from various sources, including **CSV files**, **SQL queries** on relational databases, **Google Big Query**, **APIs** and **Web scraping**. You'll also learn how to build visualisations in order to transform your data into actionable insights. Finally, you'll understand the concepts of **probability**, **statistics** and **linear algebra** that underly Data Analysis and Machine Learning.

## Python for Data Science

Learn programming in Python, how to work with Jupyter Notebook and to use powerful Python libraries like Pandas and NumPy to explore and analyse big data sets. Collect data from various sources, including CSV files, SQL queries on relational databases, Google Big Query, APIs and Web scraping.

- Using Jupyter Notebook
- Loading and exploring a dataset
- Extracting data from different sources



😑 Relational Database & SQL

Learn how to formulate a good question and how to answer it by building the right SQL query. This module will cover schema architecture and then dive deep into the advanced manipulation of **SELECT** to extract useful information from a stand-alone database or using a SQL client software like DBeaver.

#### **SKILLS LEARNED**

- Database schema architecture
- Translate a business question into a SQL query
- Advanced manipulations of **SELECT**
- SQL client software like DBeaver or Metabase

### Data Visualization

Make your data analysis more visual and understandable by including data visualizations in your Notebook. Learn how to plot your data frames using Python libraries such as matplotlib and seaborn and transform your data into actionable insights.

- Turn your data into insights with data visualizations
- Building meaningful charts



## **Statistics, Probability, Linear Algebra**

Understand the underlying math behind all the libraries and models used in the bootcamp. Become comfortable with the basic concepts of statistics & probabilities (mean, variance, random variable, Bayes's Theorem, etc.) and with matrix computation, at the core of numerical operations in libraries like **Pandas** and **Numpy**.

#### **SKILLS LEARNED**

- Statistics (random variable, distribution, variance, etc.)
- Probability (central limit theorem, Bayes's theorem)
- Linear Algebra (matrix calculus, derivatives)

#### WHAT OUR DATA SCIENCE STUDENTS SAY



Our teachers are very qualified and the range of tools we discover is wide: Python (pandas, numpy, sklearn, keras ...) sql, airflow, GCP. Through the various modules, we learn to conduct analyses, from data collection to pre-processing modeling.

#### Paul Chabbert

Growth Operations Analyst, Gorgias



# 2. Decision Science.

40 hours of work

## Statistical inferences

In your first one-week-long mini-project, you'll learn how to use statistical tools and multivariate regression analysis to answer a real business question like a real data analyst.

You'll learn how to structure a Python repository with object-oriented programming in order to clean your code and make it re-usable, how to survive the data preparation phase of a vast dataset, and how to find and interpret meaningful statistical results based on multivariate regression models.

#### SKILLS LEARNED

- Structure a Python project's folder
- Data Analysis
- Hypothesis (A/B) Testing
- Statistical tools (statsmodels)
- Multivariate regression analysis

## Communication

Data analysts are meant to communicate their findings to non-technical audiences: You will learn how to create impact by explaining your technical insights and turn them into business decisions using cost/benefits analysis. You'll be able to share your progress, present and compare your results to your teammates.



# 3. Machine Learning.

80 hours of work

In this module, you'll understand the different classes of machine learning models and their applications. You'll dive deep into the most used library in Machine Learning: **scikit-learn**. You'll start with **supervised learning** and classic methods like linear and logistic regressions to solve **prediction** tasks. You'll then move to **unsupervised learning** and implement methods like **PCA** for **dimensionality reduction** or **clustering** for discovering groups in a data set. Additionally, we'll teach you how to identify overfitting and the different techniques available to avoid it. Finally, you'll learn how to tune and evaluate different models to achieve best performance using methods like cross validation and hyperparameter tuning. Along the way, you'll implement all the essential learning algorithms such as **KNN**, **Support Vector Machines** and **Ensemble Methods** like Random Forests or Gradient Boosting.

## **Preprocessing and Supervised Learning**

Learn how to explore, clean, and prepare your dataset through preprocessing techniques like vectorisation. Get familiar with the classic models of supervised learning - linear and logistic regressions. Learn how to solve prediction and classification tasks with the Python library scikit-learn using learning algorithms like KNN (k-nearest neighbors).

- Supervised Learning with the Scikit-learn library
- Preprocessing techniques (vectorization, features selection)
- Train linear and non-linear basic models
- Performance evaluation techniques (cross-validation, holdout)
- Adapt the performance metrics to a given task



Generalisation and Overfitting

Implement training and testing phases to make sure your model can be generalised to unseen data and deployed in production with predictable accuracy. Learn how to prevent overfitting using regularization methods and how to chose the right loss function to improve your model's accuracy.

#### **SKILLS LEARNED**

- Understand the underlying mechanism hidden behind a model training
- Generalization of models (avoid overfitting via loss-function regularization)
- Hyper-parameter tuning (grid-search etc.)

### Performance Metrics

Evaluate your model's performance by defining what to optimise and the right error metrics in order to assess your business impact. Improve your model's performance with validation methods such as cross validation or hyperparameter tuning. Finally, discover a powerful supervised learning method called SVM (Support Vector Machines).

- Assess your business impact effectively
- Improve your model's performance





Move to unsupervised learning and implement methods like PCA for dimensionality reduction or clustering for discovering groups in a data set. Complete your toolbelt with ensemble method that combine other models to improve performance, such as Random Forest or Gradient Boosting.

#### SKILLS LEARNED

- Unsupervised Learning with the Scikit-learn library
- Problem simplification with Dimensional Reduction
- Clustering models (K-means, etc.)
- Train powerful models with ensemble methods
- Analyse and forecast time series with linear model
- Convert the Machine Learning workflow into an iterable Pipeline

#### WHAT OUR DATA SCIENCE STUDENTS SAY



In only 9 weeks, Le Wagon gave me the keys not only to be operational as a Data Scientist, but also to understand the mathematical logic behind the algorithms. I can't believe the progress I have made in such a short period of time, and it's all thanks to their amazing team of teachers.

Lorélie Mani Data Scientist, Rakuten



# 4. Deep Learning.

#### 40 hours of work

This module is based on real life problems that will challenge you to optimize your features and architecture in order to get the best performance.

## **Neural Networks**

Unveil the magic behind Deep Learning by understanding the architecture of neural networks (neurons, layers, stacks) and their parameters (activations, losses, optimisers). Become autonomous to build your own networks, especially to work with images, times and text, while learning the techniques and tricks that make Deep Learning work.

#### SKILLS LEARNED

- Understand the architecture of neural networks
- Build your own networks

## Computer Vision

Go further into computer vision with Convolutional Neural Networks, architectures designed to make the most out of images. Improve your model generalisation thanks to data augmentation techniques and implement advanced methods to benefit from state-of-the-art architectures thanks to Transfer Learning methods.

- Build and train Convolutional Neural Networks (CNN)
- Image preprocessing and batch data loading
- Data Augmentation
- Transfer Learning (VGG16, etc.)





Get comfortable into managing sequential data and text (sequence of words) by transforming them into appropriate inputs. Leverage the power of Recurrent Neural Networks to forecast future values and perform valuable Natural Language Processing.

#### SKILLS LEARNED

- Build and train Recurrent Neural Networks (RNN, LSTM, etc.)
- Multiple-output time-series forecasts
- Word Embedding
- Sentiment analysis

## K Deep Learning Made Easy

Discover the **Keras** Deep Learning library which enables to prototype easily while having the flexibility to tune precisely your neural network. Moreover, **Google Colab** will greatly speed up the computational time thanks to dedicated GPUs.

- Dense Neural Network architecture
- Performance evaluation and overfitting
- Build and train NN with the Tensorflow Keras library
- Launch online trainings on GPUs with Google Colab



# 5. Data Engineering.

40 hours of work

In one week, learn all the best practices around tackling an exciting ML problem too big to solve on your computer alone, and make its prediction available to the world via an API!

First, we'll teach you how to become more productive in building a machine learning model by using the right workflow. We will then leverage a library called **MLflow** to log your multiple experimentations, iteration and tuning. Third, we'll show you how to train at scale using cloud computing power with **Google Cloud Al Platform**. Finally, you'll learn **Docker** to deploy your code and model to production and make it available to the world using Cloud Run or Kubernetes Engine.

## Machine Learning Pipeline

Move from Jupyter Notebook to a code editor and learn how to set up a machine learning project in the right way in order to quickly and confidently iterate. Learn how to convert a machine learning model into a model with a robust and scalable pipeline with sklearn-pipeline using encoders and transformers.

- From Jupyter Notebook to packaged code
- Setting up a good ML project (folders, files, etc..)
- Continuous Integration (GitHub Actions)
- MLflow for logging model performances
- Using Sklearn-Pipeline (Encoders, Transformers)



### Machine Learning workflow with MLflow

Building a machine learning model from start to finish requires a lot of data preparation, experimentation, iteration, and tuning. We'll teach you how to do your feature engineering and hyperparameter tuning in order to build the best model. For this, we will leverage a library called **MLflow**.

#### SKILLS LEARNED

- Build your own API
- Containerize with Docker and deploy your API on Cloud Run
- Build and deploy a Web-based front-end app

### Train at scale with Google Cloud Platform

Finally, we'll show you how to deploy your code and model to production. Using **Google Cloud AI Platform**, you'll be able to train your model at scale, package it and make it available to the world. Cherry on top, you will use a **Docker** environment to deploy your own RESTful Flask API which could be plugged into any front-end interface.

- Discover the cloud computing with Google Cloud Platform (CGP)
- Use cloud-based storage (Cloud Storage)
- Use virtual machines to train models with GPUs (Google Al Platform, Al Notebooks, Colab)



# 6. Final Projects.

#### 80 hours of work

The goal of this module is to bring together all the components you've learned so far and work on real open-ended problems in teams.

## Solve real-world problems with Data!

The final weeks of the course will culminate in the delivery of your capstone project! Working collaboratively in small teams, the project will allow you to utilise all the skills you have learned throughout the bootcamp in order to solve a real world data science problem.

- Collaborate efficiently in teams of 3-4 people on a real data science project through a common Python repository.
- Use a mix of your own datasets (if you have any from your company / non-profit organisation) and open-data repositories (Government initiatives, Kaggle, etc.).
- Put into practice all the tools, techniques, and methodologies covered in the Data Science Course.
- Invent, pitch, design, code, and deploy your fully functioning Data Project, to be used in real-life scenarios and as a portfolio-ready application to showcase your new data science skill set.
- Check demos on <a href="https://lew.ag/data-demodays">https://lew.ag/data-demodays</a>



## Career Week.

#### (1 week - optional)

Prepare yourself to dive into a new career through workshops, talks and 1-to-1 coaching.

The career week is an optional 1-week schedule packed with practical workshops to get ready for your next steps. From building a portfolio to inspiring talks, prepare yourself for a new life in tech!

- Discover potential career paths, hearing from our alumni
- Design a resume geared for your career goals
- Boost your online presence with LinkedIn and Github
- Build a portfolio to showcase your projects
- Learn to navigate the job market and apply for companies
- Start your post-bootcamp learning journey with curated courses
- Discover our hiring partners and recruiters
- Learn more about technical interviews and coding challenges
- Listen to inspiring freelancers and entrepreneurs

After this intensive Career Week, we offer dedicated, 1-to-1 coaching for all our graduates through Office Hours.

#### WHAT OUR DATA SCIENCE STUDENTS SAY



After graduation from Le Wagon bootcamp, I spent one week before Christmas holidays sending out as many applications as possible. When January came, I went through my emails and a few people had reached out to me already. It took me just 2,5 weeks after graduation to get a job offer.

## Arron Ritchie

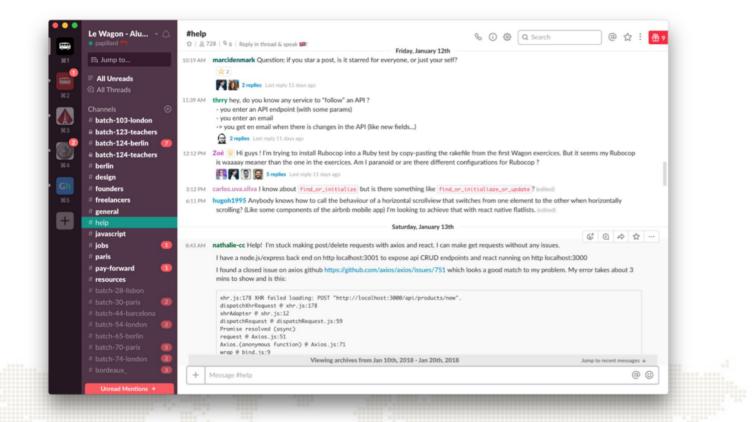
Data Scientist, Hacarus



# Our Community.

More than 13,500+ creative alumni with various backgrounds (engineers, entrepreneurs, freelancers, data scientists, data analysts, designers...) coming from 50+ countries are chatting every day on Slack, getting help from Le Wagon's teachers, sharing tips, resources, code gists, job offers and news from their products. One of the best tech communities in the world.

### Check out our Slack to get a taste of it 👇



You will always be welcome in our 43 campuses worldwide.

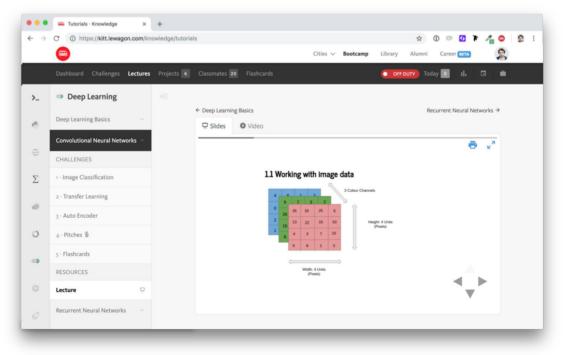


## Our Online Platform.

We warned you, we are serious about education! That's why we've developed the best platform we could imagine for our students:

- ✓ 300+ challenges
- ✓ 45 video lectures of 1h30 to re-watch any time after the bootcamp
- 100+ live-codes and tutorials on real-life examples
- ✓ 900+ flashcards to rehearse core concepts
- Life-time access to our platform and all our future resources & tutorials

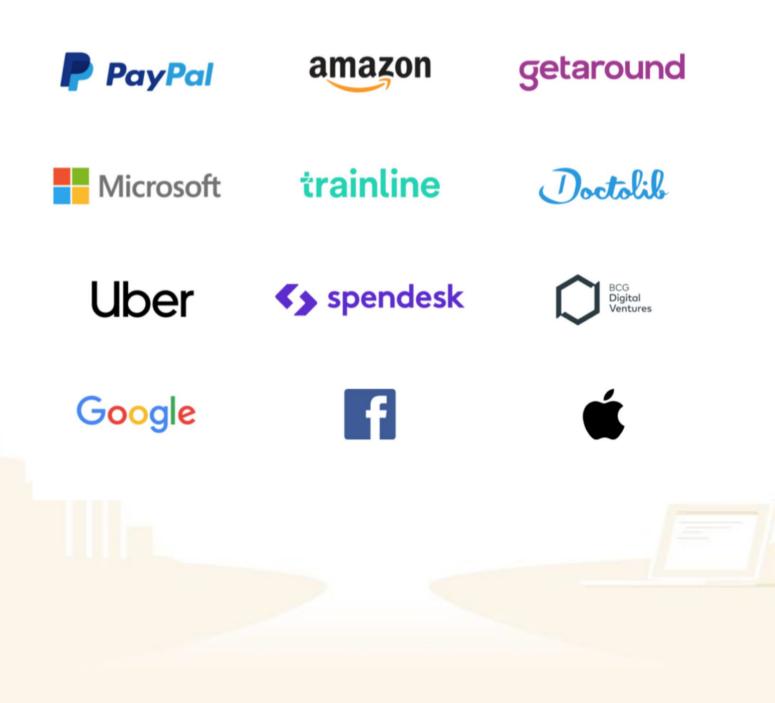
All this content has been developed thoroughly by Le Wagon's teachers for the last 7 years, batch after batch, feedback after feedback. We believe a great coding course demands lots of iterations and refinements to make sure we are moving at the same pace as the tech we are teaching.





## Alumni Jobs.

Our alumni now work for the best tech companies as engineers, developers, data analysts, data scientists or product managers.



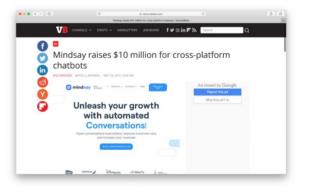


## Alumni Startups.

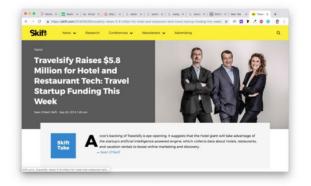
Le Wagon's community is also a strong network of entrepreneurs. More than 180 startups have been launched by Le Wagon alumni, 81 of them having successfully raised funding for a total of over \$461M to date.

- ✓ 42 of these startups have raised between \$1M and \$83M
- ✓ 23 of these startups have raised between \$300,000 and \$999,000
- ✓ 180+ active startups have been launched by Le Wagon alumni
- ✓ 50% of the founders meet each other during the bootcamp

Successful companies that have emerged from Le Wagon include Matera, Skello, Workelo, Regaind (acquired by Apple), Travelsify, Side.co, Plato, Scalia A-line, Kudoz and many more...











All you need to know before applying to our data science course.

### 1. Tuition fees, scholarships, funding options

#### What are the tuition fees?

Price may vary depending on the location and its cost of living. You will find prices for our different courses on the page of each city on Le Wagon's website (accessible from the top navigation bar).

#### Are there any scholarships available?

Some cities offer scholarships for co-founders, locals, women in tech, or in partnership with local organisations. You will find more details about these scholarships on the page of each city on Le Wagon's website. Also feel free to reach out to the local admission manager for more information and possible assistance.

## What payment plans do you offer? What are the instalments and payment schedule?

The bootcamp is to be paid in several instalments. The number of instalments varies depending on the city. Please reach out to the local admission manager for any questions - she/he'll be happy to share any specificities on this matter.

## Are there other funding options available, like deferred tuition, student loans or ISA?

Some cities offer specific funding options with local financial partners, like deferred tuition plans, student loans with interesting conditions or Income Share Agreements (ISA). Again, you will find more details about these options on the page of each city on Le Wagon's website. Also feel free to reach out to the local admission manager to have more details about their local funding options.



## 2. Application, Selection, Preparation

#### How can I apply to a course?

To apply to a course, you just need to complete and submit the application form on our website, choosing the course (web development, data science), the format (9-week full-time, 24-week part-time) and the city you're interested in. This is a rather quick process, that takes a few minutes. We will then schedule an interview (by Zoom or on-site) to understand your goals more in details.

#### How will you evaluate my online application?

In your online applications, we're only looking for one thing: motivation. Our bootcamps are very intense, fast-paced and demanding, and we will select only the most motivated students to get onboard. Make sure that you explain why you want to join Le Wagon in your application - the more details you give us, the better chance you have to get selected for the interview.

#### What's the interview about?

If you apply to our data science bootcamp, our admission manager will also ensure that you already have some prerequisite skills in programming and Mathematics since the course builds up on these foundations.

Very quickly after the interview, you'll receive a notification to let you know if you've passed the interview and what the next steps are.

#### What are the next steps after the interview? Are there any assessments?

If you are selected after the interview, you will then have one week to complete an online assessment, taking about 2 hours to check if you possess the required mathematics and programming skills to attend the bootcamp.



#### How will I know if I get accepted?

If you pass the interview with our admission manager, it means you have both the motivation and the prerequisite skills. Congratulations, you can now join the data science bootcamp. Our admission manager will get back to you with a contract and send you the preparation work to complete before the beginning of the course.

#### Is there any preparation work once I get accepted?

To apply to a course, you just need to complete and submit the application form on our website, choosing the course (web development, data science), the format (9-week full-time, 24-week part-time) and the city you're interested in. This is a rather quick process, that takes a few minutes. We will then schedule an interview (by Zoom or on-site) to understand your goals more in details.

#### Can I join a waiting list if a session is full?

It is very rare that candidates abandon ship once they have been accepted to the course. Nevertheless, we always open a waiting list when bootcamps are full, in case this happens! To join the waiting list, you will have to to go through the exact same application process.

#### How should I choose the right city to do the course?

Le Wagon fulfils the exact same mission in all of our locations. The curriculum is the same everywhere as are all of our materials (lectures and exercises). Teachers and teaching assistants are hired and trained in the same way all around the globe.

Our advice to help choosing a city would be:

- **Environment**: it is ideal to do the bootcamp in a city where you would like to build something either take part in its tech community, launch your startup, or find a job
- Quality of life: can I afford it ? Would I like the climate ? etc.
- Language: check the language in which the bootcamp is actually done (our bootcamp is taught in English in most of our cities, but there are several exceptions in Sāo Paulo and Belo Horizonte, the lectures are in Portuguese, in France the bootcamp is in French, etc.)



#### When will the next sessions take place?

We usually open applications 4 to 5 months in advance. You will see the next batch dates on the page of each city on Le Wagon's website (accessible from the top navigation bar). If you're unsure about anything, feel free to reach out to the admission manager of a specific city. She/He will gladly answer all of your questions and contact you as soon as we open the applications for the upcoming batch.

#### Do you help international students to get a visa?

Depending on your situation and where you would like to do the bootcamp, you will potentially need a tourist or business visa. Please reach out to the city's admission manager for more information and possible assistance.

#### **Extra information**

For mainland China, in some cases, we can invite you on a Business Visa (M). Duration and number of entries vary according to your nationality. Please consult our team to have more information.



## 3. Student profile

#### I don't have any technical background, can I join the course?

The data science course requires some basic knowledge of programming and mathematics.

#### How much programming do I need to know?

Well, you must be comfortable with data types & variables, conditions, loops, functions and data structures like arrays and dictionaries (also called hashes in some programming languages). If you know those topics in other languages than Python (like Ruby, JavaScript, C++, VBA, etc.), you have the right programming prerequisites!

#### How much mathematics do I need to know?

In order to join our data science course, you also need a minimum level in Mathematics and to be familiar with concepts covered in high school's scientific section. We need you to be comfortable with functions, their derivatives & systems of linear equations. To get up to speed, some additional preparation work will be given to you before the bootcamp start to get a refresh of all these concepts as well as more advanced knowledge on linear algebra and statistics.

#### Is there a typical profile for a Le Wagon student?

Our students all have very different profiles. They are between 18 and 55, and they all share the same curiosity and enthusiasm for coding and data. They all come from various background: undergraduates, marketers, engineers, sales, lawyers, journalists, architects, musicians... Thus, spending 9 weeks at Le Wagon is not only an incredible human experience, it also helps you build an astonishing network for your after-bootcamp life to keep learning and find amazing job or freelance opportunities!

#### I'm under 18 years old, can I apply?

You need to be 18 to enroll for the course. However, you can apply if you are 17 as long as you turn 18 before the start of the bootcamp.



#### I'm over 50 years old, should I apply?

We've had students over 50 in the past and they've succeeded in learning web development or data science and starting new careers like anyone else. Age doesn't make any differences in the recruitment process to get onboard, the only thing we consider is your commitment and your motivation.

#### I don't currently have an idea of a final project to work on. Is it a problem?

Don't worry about it! Students with a project are invited to pitch their idea during the bootcamp while people without one are welcome to team up with them.

#### What language is the bootcamp taught in?

In most cities, the bootcamp is taught in English.

In French cities, the program is in French. You will have a 1h30 lecture in the morning in French, and a 1h30 live-code in the evening in French as well. So, if you don't understand French correctly, you won't be able to attend the bootcamp in France.

In some other cities (São Paulo, Shanghai, Chengdu, Tokyo) specific sessions are organised in other languages (Brazilian Portuguese, Chinese, Japanese). You can check the language of the next batch on the "Apply" page.

#### Do I need a laptop?

Each student must have a laptop. You'll need Mac OS X or Linux, but if you only have Windows, no worries, you'll learn how to install Linux the first day.

A Microsoft Surface or Apple iPad won't do. Those are not real computers. If you need a piece of advice on what to buy, please contact the staff.



## 4. Course info and schedule

#### What's the course schedule? What's the level of commitment required?

#### Full-time schedule

The full-time bootcamp is a 9-week program, from Monday to Friday, 9am - 6pm. To get the most out of the program, you need to be fully committed to it as it is a truly demanding experience (360 hours of code in 9 weeks!). Generally, people who keep a side activity during the bootcamp struggle to keep pace.

#### Part-time schedule

The part-time bootcamp is a 24-week program, where students have two remote sessions from 7pm to 10pm generally on Tuesday evening and Thursday evening, and come for one on-campus session on Saturday all day from 9am to 6pm.

In addition, part-time students have some homework and course videos to watch before coming to an on-campus or remote session to benefit the most from the session, e.g. practice, interact with their classmates and ask their questions to teachers instead of listening to a lecture after a day of work. The part-time program is really a marathon of 24 weeks! It requires students to be rigorous, to do their homework, and be even more committed than for full-time. Note that the part-time schedule can be slightly adapted in each city and includes some breaks for public holidays.

The part-time bootcamp has been designed to fit around a full-time job or other commitments during the working week, with live sessions held in the evenings and weekends. Check out the city page of the campus you are interested in to see the weekly schedule. The weekly time commitment is 16 hours, with 14 hours of schedule live sessions and 2 hours of video recorded lectures to watch.



#### What is the main difference between Le Wagon and other coding bootcamps?

#### 8 years of experience

Le Wagon was founded in 2013 and has more than 8 years of experience teaching tech skills and helping people change their life, start a career in tech and thrive in their new job. More than 13,500 alumni have graduated from our bootcamps in 43 cities around the world, and Le Wagon is the most acclaimed coding bootcamp worldwide on Switchup according to student reviews. Feel free to reach out to any of our graduates on Linkedin to hear what they have to say about Le Wagon.

#### Making you team-ready

We've spent a lot of time improving our two bootcamps in web development and data science to teach our students the core concepts and give them solid foundations, but also to make sure they learn how to collaborate in a tech team with the right methodology and workflow, and that they know how to use modern tools and apply best practices in Web Development and Data Science. This makes Le Wagon's graduates extremely interesting for tech recruiters since lots of other bootcamps don't necessarily teach these extra skills focusing their curriculum more on a specific technology or language.

#### A unique community

Le Wagon's community is the most active bootcamp network with more than 13,500 alumni, 180+ startups founded by alumni (raising more than \$461M altogether) and 1,000 teachers in web development and data science. Once you graduate from Le Wagon, you belong to this vibrant family, you will keep learning for life with the support of this community, and access unique job and freelance opportunities.



## What is the main difference between Le Wagon and an academic degree in Computer Science or Data Science?

The main difference between an academic degree and a bootcamp is that we don't start from scratch and we learn with a lot of practice using modern tools and methods. In an academic curriculum in CS or DS, you will start learning all the theoretical knowledge (e.g. hardware layer of your computer for a CS degree, or advanced concepts of linear algebra and statistics for a DS degree) before moving to applied topics like web development or machine learning. This is only useful if you want to be able to navigate between these layers.

However nowadays, you can build almost anything while only mastering the last part. That's why we designed our bootcamps this way. Of course you won't work at Tesla as a software engineer or at Google as a Deep Learning expert (unless you already have a scientific background when joining our bootcamp) but you will be able to work on your own tech products, web applications and data science projects or find a job as a junior developer, data scientist, data analyst or product manager with enough skills and knowledge to get started in your new company and bring value. Of course, that will be your role to keep learning in your new job and become more expert in specific topics.

#### Do you provide accommodation/catering?

We do not provide accommodation or catering. The price of the course only includes the tuition - and unlimited tea, coffee, fruits. Nonetheless, our city managers will be more than happy to recommend some great places for your stay as they are used to helping students find accommodation and have lots of good plans.



### 5. Data Science curriculum

#### What will I be able to do at the end of the data science bootcamp?

At the end of the 9 weeks (full-time) or 24 weeks (part-time), you will have all the skills you need to launch your career in a data science team. You will finish the course knowing how to explore, clean and transform data into actionable insights and how to implement machine learning models from start to finish in a production environment, working in teams with the best-in-class tool belt.

You will then have different options:

- Find a job and join a team as data scientist, data analyst or data engineer
- Work as a freelancer on data science projects
- Launch a data science project as an entrepreneur

#### Will I be able to find a job as a data scientist?

The job title "Data Scientist" can correspond to very different roles depending on the company (startup, scale-up, big company), the product you're working on and the team you will join.

After Le Wagon's data science bootcamp, you will be able to apply to data analyst jobs. For data scientist or data engineer jobs, it will depend on the company and their criteria. For instance, some big tech companies (e.g. Airbnb or Facebook) will only accept data scientists profiles with a PhD in Mathematics, so you will not be able to apply to these positions unless you come to our data science bootcamp with a strong background in Mathematics already. In lots of smaller companies (like early-stage startups or data agencies) they will accept candidates with solid foundations in data science but less academic background in Mathematics, so they will be very interested in your profile after the course.



### 6. Career services

#### Do you offer career support?

Once the bootcamps ends, you will benefit from our career services. Our local team will organise a career week (see « Career Week » page) and help you prepare for tech interviews, meet the best local recruiters and connect with relevant alumni. You will also have access to a complete guide to kick-start your tech career after the course: boost your portfolio, prepare for technical interviews, leverage on our 13,500 alumni community, but also to lots of useful Slack channels to find jobs or freelance opportunities.

Our career team will introduce you to the right people depending on your goal and you will meet with inspiring alumni who will come back to share their post-bootcamp experiences, like how they found a job, started their own company or freelancing career.

These are the career services Le Wagon provides, offline or online depending on the COVID-19 situation in your city:

- Networking events, job fairs, career workshops and office hours with alumni or tech recruiters
- Coaching sessions with our Talent Manager or local alumni
- Resources our Career Playbook
- Introductions to our network of hiring partners through our Hiring Newsletter

### 7. Tech Recruiters

#### Is it possible to share our job offer(s) with your alumni?

Yes of course. However recruitment is a long-term relationship and as such we would love to connect with you first!

#### Do you organise recruitment events?

Yes we do! From regular events to great workshops to promote your company's culture we would love to discuss the best format fitting your needs around a coffee. Contact us through our Career Services page to tell us a bit more about you and join our hiring network!

