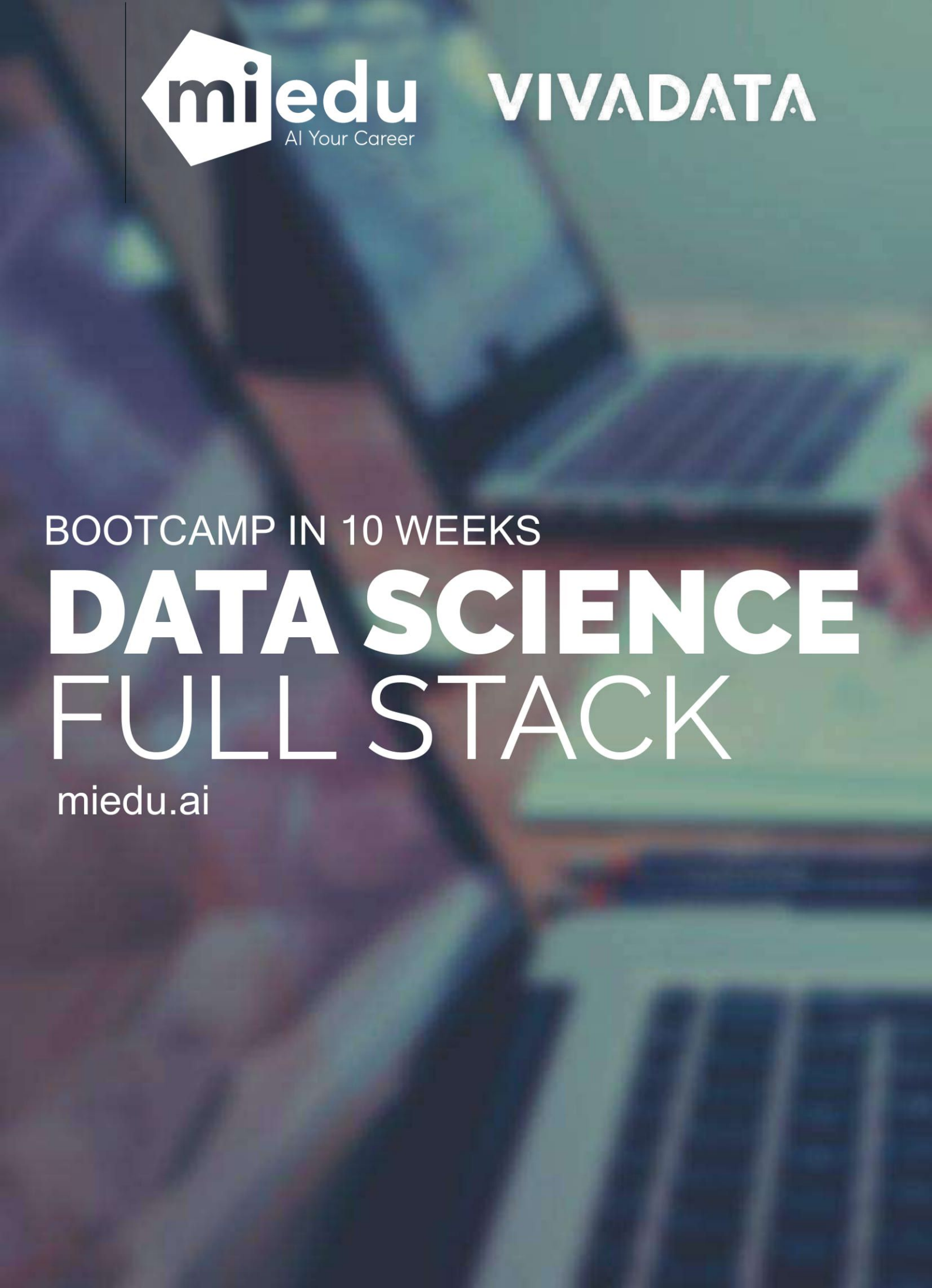

miedu
AI Your Career
VIVADATA
BOOTCAMP IN 10 WEEKS
DATA SCIENCE
FULL STACK
miedu.ai

Table of Content

Everything you need to know before joining us

miedu
AI Your Career

General Presentation

Founded in 2021 in response to increasing job demand in Artifical Intelligence, MiEdu - An AI Platform for Personalized Career Path, in partnership with VIVADATA. We proudly present our Full Stack Data Science Bootcamp within 10 intensive weeks in Data Science, Data Analysis, Data Engineering, and Artifical Inteligence.

Essential technologies in data Industry

The training focuses on the essential technologies that are really used in business from data collection, database management, data analysis and machine learning, to go-live process. All essential data tools are covered.

Practice above all

Throughout the course, our students work on their own computers: it is not writing a few basic lines of code, but we learn to fully manage our programming environment and deploy your projects in production !

Learning by doing projects

One dataset, one goal, and let's go! Our students learn how to lead data projects from A to Z, from data collecting, results reporting to deploying your application in the cloud. You work on concrete business cases, which prepares you for the reality of data professions.

Lifetime community

Our alumni have unlimited access to our Learning Platform, the latest updates, Slack channel and online/offline events. You can always contact your mentors and other alumni for technical or professional advice, even after the training is over.

Organisation of Bootcamp

- ✓ 400 hours of formation
- ✓ 10% theory - 90% practice
- ✓ Continuously updating curriculumn content
- ✓ Supervision by Data Professionals
- ✓ Peer programming & projects
- ✓ Lifetime resources access

Typical learning day

9h-10h30 : Key Concept Explanation

After taking a coffee, we start the class on the theme of the day. No slides or long theoretical explanations: our courses are completely practical, teachers instruct and write the code together with you.

10h30-17h : Supervised Challenges

It's your turn! For each day, we design a series of exercises with increasing difficulty. You work directly on your laptop in pairs to familiarize yourself with peer programming. Our teachers and assistants are there to answer your questions and resolve problems.

17h-18h : Live Programming

Back in class format, with the teachers, you will work on the exercises that are the most difficult and challenging.

Organisation of Bootcamp

Full-time

$4,000

- ✓ 10 weeks
- ✓ 400 hours of formation
- ✓ From Monday to Friday (9h-18h)

Part-time

$4,000

- ✓ 20 weeks
- ✓ 400 hours of formation
- ✓ Tueday & Thursday (19h-22h) Saturday (9h-17h)

Remote

$3.500

Do you live far away? Take our Remote Training - full time or part time! You participate in our virtual classes via Zoom and Slack with the same support as in person.

Less fatigue in transport, more availability and concentration because our experiences show that our students progress faster when working at home.

What you will learn

Module 1 - Fundamental

20h of preparatory work at home + 1 offline week

Learn how to program in Python, work on the command line, version your code in git, and collaborate with GitHub.

Module 2 - Data Management

1 offline week

Learn about the best data ingestion and recovery strategies, and store them in SQL and NoSQL databases.

Module 3 - Data Analysis

1,5 offline week

Effectively analyze your data and design high-impact visualizations by deploying interactive dashboards.

Module 4 - Machine Learning

1,5 offline week

Take control of supervised / unsupervised models and their numerous applications, and then independently lead your machine learning projects from A to Z.

What you will learn

Module 5 - ML in Production

1 offline week

Go beyond the prototyping phases by learning how to write production code and deploy your machine learning models.

Module 6 - Natural Language Processing

1 offline week

Enter the vast field of natural language processing, a rapidly growing discipline in research and business.

Module 7 - Data Engineering

1 offline week

Get started with cloud computing and use architecture distributed computing to manage your data in a Big Data context.

Module 8 - Deep Learning

2 offline week

Build deep neural networks to perform specialized tasks in computer vision, language comprehension, or media generation.

Module 1 - Fundamental

Preparatory Work

Bootcamp schedule is extremely intense. The preparatory work allows you to start in good conditions.

- Introduction to Python
- Mathematics reminders: statistics, vectors, matrices

Software Environment

- UNIX System
- Work with Command Line
- Versioning with Git and GitHub
- Shell Scripting

Programming Python

Master the reference language programing in data.

- Data types and structures
- Control flow (loops and conditions)
- Functions
- Object-Oriented Programming
- Managing files (CSV, JSON, XML)

Module 2 - Data Management

Data Collection

Utilization of API REST

Scraping of web pages (BeautifulSoup, Selenium, Scrapy)

Database Storage

Relational databases with SQL and SQLAlchemy

Non-relational databases with MongoDB and PyMongo

Project: Data ingestion by scraping and storing in database

Module 3 - Data Analysis

Master data tools and techniques to become a Data Analyst.

Data Manipulation and Analysis

Data manipulation with the NumPy and Pandas libraries

Statistical analysis tools

Exploratory Data Analysis

Data visualization

Data visualization with Matplotlib and Seaborn

Geographic visualizations with Folium

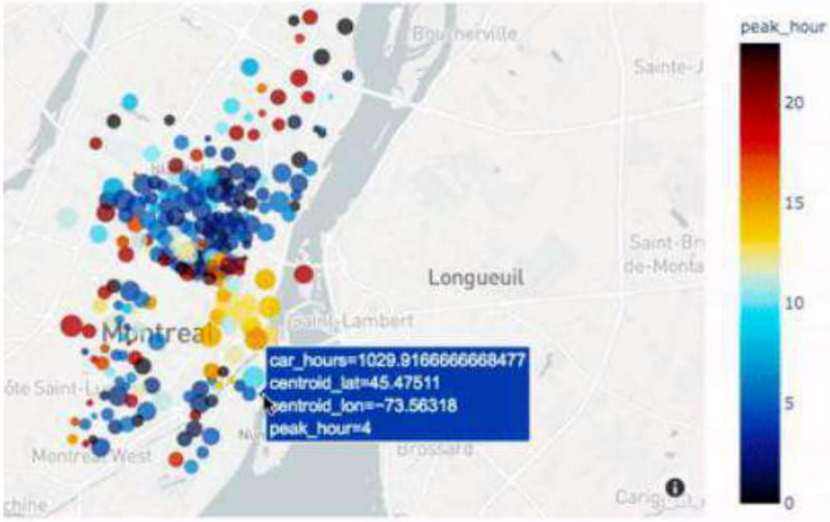
Interactive visualizations with Bokeh and Altair

Project: Deployment of an interactive dashboard of pandemic monitoring

Creation of dashboards with Dash-Plotly

Integration into an application

Cloud deployment on Heroku



Module 4 - Machine Learning

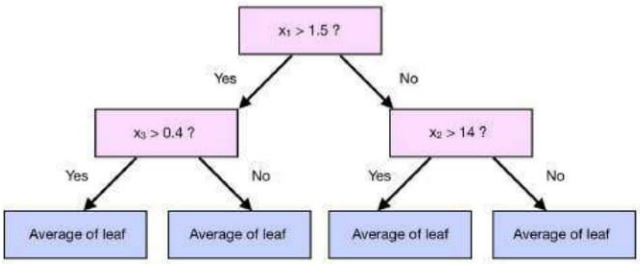
Discover the world of machine learning and learn how to lead a project from A to Z while optimizing your results.

Supervised Machine Learning

Take charge of the different families of models and use them to solve concrete business cases.

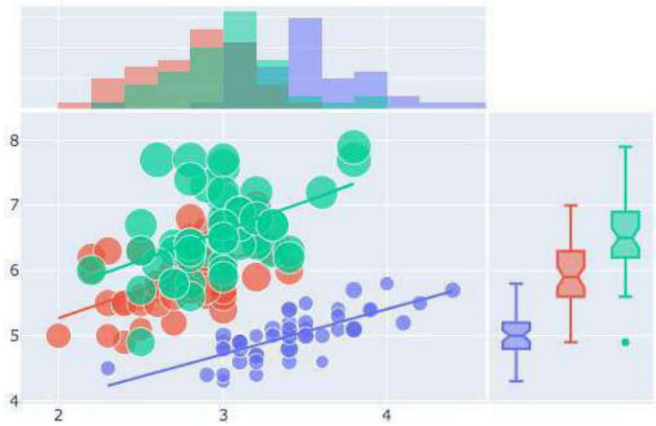
Supervised ML Models

- Machine learning principles
- Classification models
- Regression models
- Ensemble models
- Recommendation models
- Time series



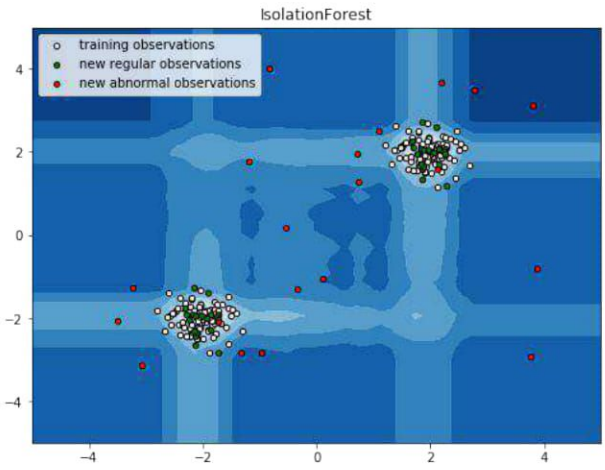
Lead an ML project

- Data preparation
- Hyperparameters Optimization
- Performance evaluation
- Overfitting / Underfitting
- Cross validation and regularization
- Pipelines with scikit-learn
- Explainability of algorithms



Unsupervised Machine Learning

- Clustering Dimensionality Reduction
- Hierarchical clustering
- Association Learning
- Detection of anomalies



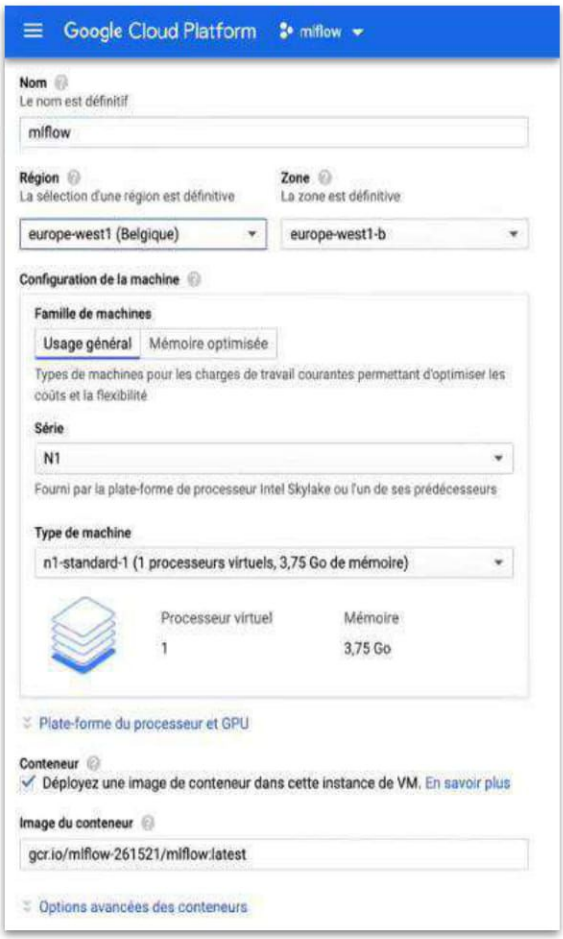
Projects: 5 projects on real use cases

- ✓ **Deployment of a Movie Recommendation Application**
- ✓ **Prediction of Churn (attrition rate) of a Customer Base**
- ✓ **Airbnb Property Price Prediction**
- ✓ **Segmentation of a Customer Base**
- ✓ **Credit card Fraud Detection**

Module 5 - ML in Production

Data in production

- Pipelines ETL
- Data Warehousing
- Data streaming
- Infrastructure as code
- Test Automation



DataOps

- Data Versioning
- Application Packaging
- Continuous integration with
- CircleCI Lifecycle with MLflow

Project: *Packaging* and deployment of a machine learning model trained on wine data.

Module 6 - Natural Language Processing

💬 Textual Data Processing

Use the power of NLTK and SpaCy to process unstructured textual data for use in machine learning models.

> Text Pre-processing
>
> Bag of Words and TF-IDF
>
> Text Similarity
>
> Topic Modelling
>
> Sentiments Analysis
>
> Name Entity Recognition (NER)
>
> Word embeddings

📋 Projects: 3 projects on real use cases

- ✓ **Deployment of a chatbot on Facebook Messenger**
- ✓ **Sentiment analysis on a Corpus of Tweets**
- ✓ **Automatic detection of trolls on a forum**

Module 7 - Data Engineering

Application Deployment

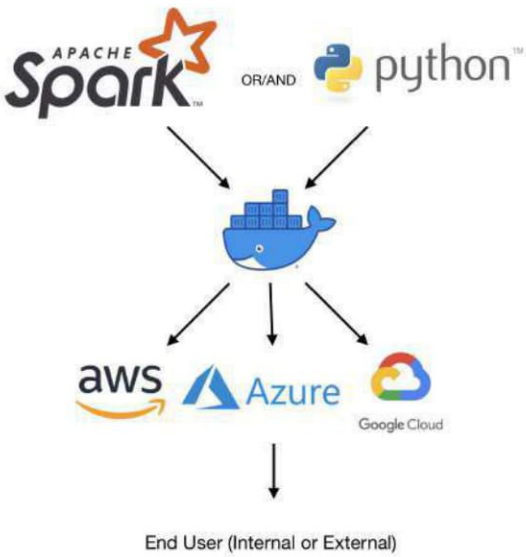
Learn how to create and use containers for your applications with Docker

Orchestrate your containers on server clusters with Kubernetes

Work with Google Cloud Platform, Amazon Web Services, or Microsoft Azure.

Distributed Computing / Big Data

Learn how to work with distributed computing architectures for processing massive volumes of data.



Hadoop : MapReduce, HDFS

Spark

SparkML (MLib)

Scala Introduction

Project: Predicting the success of a crowdfunding campaign with SparkML.

Module 8 - Deep Learning

Multi Layer Perceptron

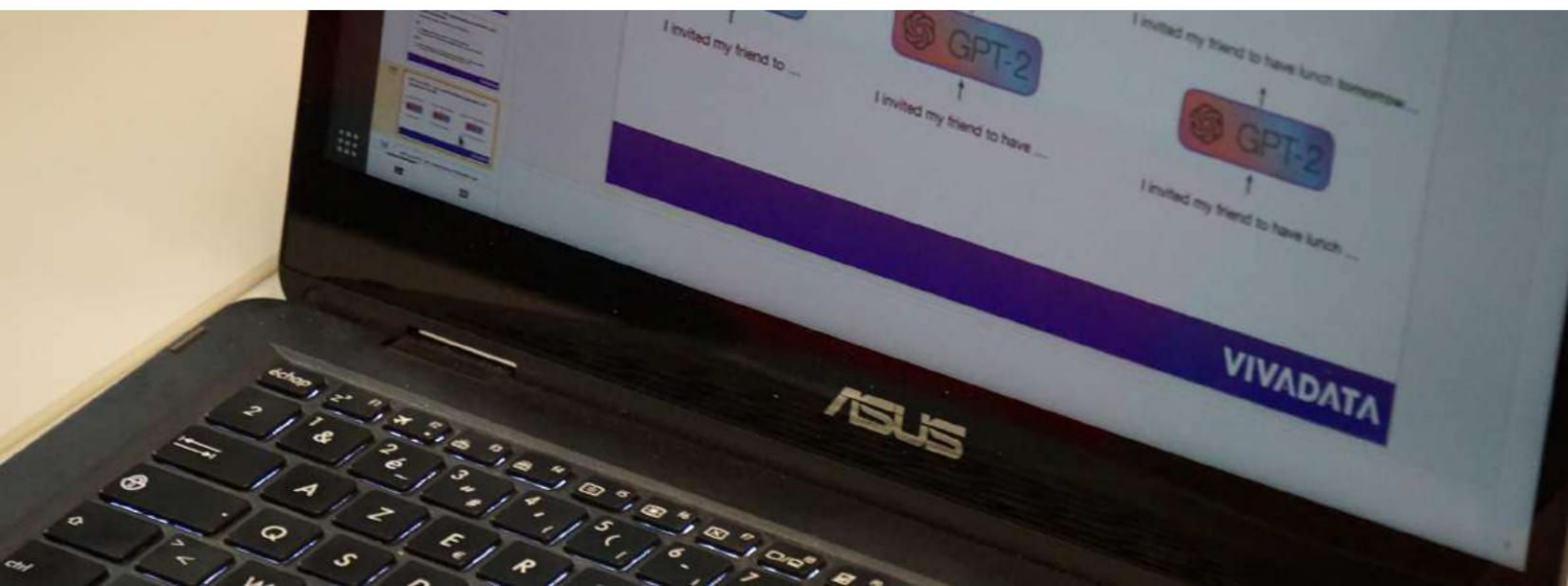
Learn how to build a deep neural network, and then start with the simplest architecture: the Perceptron.

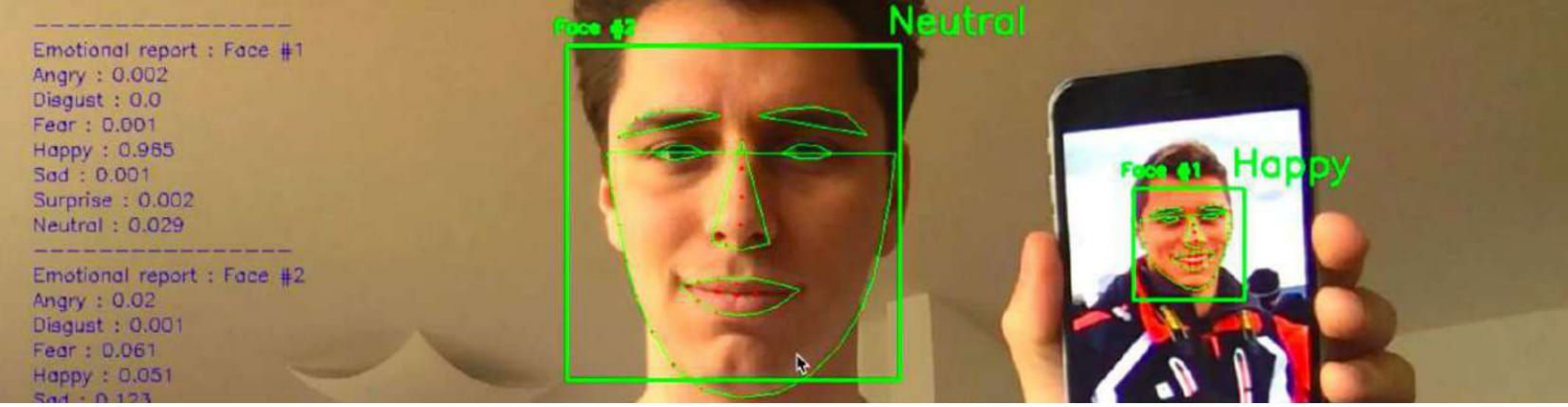
> Multi-Layered Perceptron (MLP)
>
> Hyperparameters Optimization and regularization
>
> Propagation Forward et Backward

Computer Vision

Learn computer image processing techniques.

> Convolutional Neural Networks (CNN)
>
> Detection of objects in images or videos
>
> Face detection and facial recognition





Natural Language Understanding

Master Recurrent Neural Networks and Transformers for a better understanding of human natural language.

> Recurrent Neural Networks (RNN)
>
> GRU and LSTM
>
> Attention Mechanism and Transformers

Generative Networks

Learn how to generate images or texts automatically using advanced generative networks.

> Generative Adversarial Networks (GAN)
>
> Variational AutoEncoders (VAE)

Projets: 5 projects on real use-cases

- ✓ **Eyes Detection**
- ✓ **Automatic Photo Classification**
- ✓ **Music Generation**
- ✓ **Market Price Prediction**
- ✓ **Recognition of Emotions**

Final Project

During the bootcamp, students must complete a final project depending on their own choices.

This project makes use of the knowledge and skills acquired throughout the intensive bootcamp.

Each student presents his/her project and its results during the Demo Day, in front of our community and a jury of professionals, recruiters, enterprises.

Some examples of projects:

- **Hand Gesture Recognition**: control your computer with hand gestures recognized by webcam.
- **Heartbeat:** prevention of heart attacks by analyzing heartbeat frequencies.
- **Facial Age Recognition**: predicting a person's age from a photo of their face.
- **Fake News Detector**: automatic detection of fake news articles.
- **Football Predictions**: prediction of the results of football matches to optimize a sports betting strategy.
- **Heavy Metal Project**: a mini-Shazam for metalheads !

Build your Portfolio

About fifteen concrete projects carried out during the bootcamp, plus a final project, this is so much experience in data science ready to be used to highlight your skills!

- ✓ More than 10 projects carried out during the training.
- ✓ Achievement of challenges on the Kaggle and Zindi platforms.
- ✓ Publishing a portfolio on GitHub.
- ✓ Systematic production and deployment.
- ✓ Publication of blog articles about your projects and achievements.
- ✓ Dissemination within the Vivadata community.
- ✓ Promotion of your skills to recruiters.

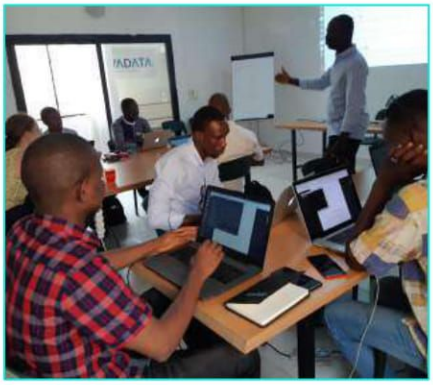
During the training, I carefully documented and posted my projects to a public GitHub repo. Then, I could easily use them to prove my job interview skills!

Louison, Lead Data Scientist
OCTO Technology

Vivadata campus

Paris

Our historic campus in the 20th arrondissement opened in 2017. It is also the one where we first deploy the new courses !



Dakar

Since 2019, we are located in Dakar. The Campus in Senegalese capital is increasingly establishing itself as the French-speaking tech lab in West Africa.

Abidjan

In 2020, we opened a new campus in Abidjan. The campus in Ivorian capital is very connected and the job market is driven by large established enterprises.

Vivadata campus

Antananarivo
In 2019, we also opened a campus in the Madagascan capital, in partnership with SmartOne, a data labeling company.

Ho-Chi-Minh
Our first English-speaking campus, in partnership with MiEdu, will open its doors in Vietnam in Mar 2021. At the moment, it is unexpectedly postponed by the coronavirus crisis!

Rabat
We opened a campus in Morocco in September 2020 to strengthen our presence in West Africa.

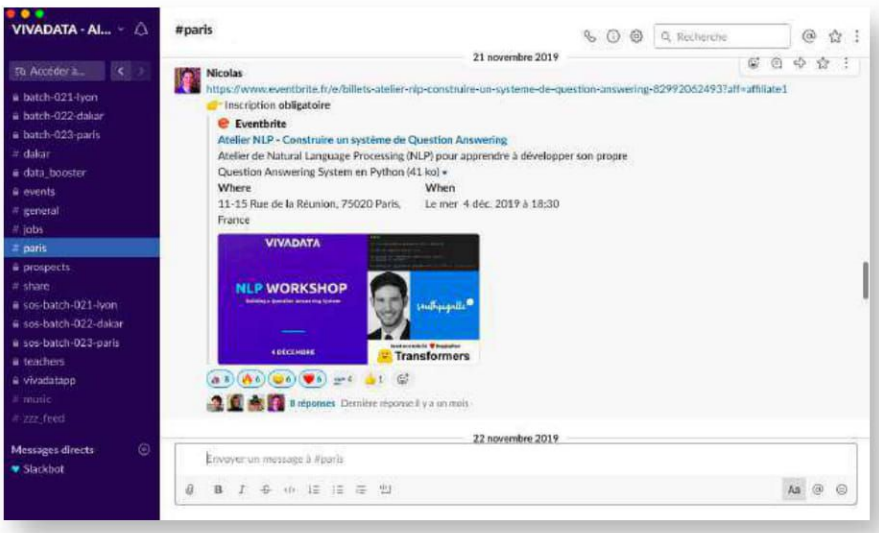
Vivadata community

By joining our community, you join a network of more than 500 alumni and 50 teachers, in France and Africa, who discuss daily on Slack: tips and technical advice, job offers and freelance missions, events, meetings, entrepreneurship, offers...

And if you travel the world, you will always be welcomed with open arms on our various campuses: we will not fail to make you taste the local hospitality!

A vibrant and international community

A dynamic Slack space



Our Events

We regularly organize events to solidify the links within our community and facilitate exchanges between batches.

Technical workshops with experts

Offline Alumni meeting

Offline Community meeting

Our alumni

Data professions offer many possibilities. When they do not launch an entrepreneurial project, our alumni become:

- ✓ **Data Scientist**: integrated into the data teams , they design the models and algorithms to collect store process and render data. *Average entry salary $2,214/year (in Vietnam)*

- ✓ **Data Analyst**: they make company data talk using analysis and visualization tools with the objective of supporting decision making. *Average entry salary $1000/year (in Vietnam)*

- ✓ **Data Engineer** they take care of the production of the models developed by data scientists, and create management architectures for massive volumes of data.
  Average entry salary $1,716/year (in Vietnam)

- ✓ **Freelance**: they work on their own for different clients on short or medium term missions in data science, data analysis or data engineering.
  Average daily rate for a junior : $100/day

After the bootcamp, I joined PHENIX to set up a data team. As I was the first in the company to work on these topics, I had a completely free hand to recruit and develop the topics that seemed interesting to me!

Agnès, Head of Data Analysis
PHENIX

Alumni Jobs

Our alumni are recruited by companies in all sizes, from large groups to start-ups, for positions as data scientists, data analysts, data engineers, data managers.

BlaBlaCar

Marine, Data & Process Manager

Devolis
Solutions digitales de précision

Marie, Lead Data Scientist

grvt
alliance data & media

Hélène, Data Scientist

Capgemini invent

Mickaël, Lead Data Scientist

ENGIE

Florent, Data Scientist

Converteo
ADLPerformance
DATA FOR BUSINESS ACCELERATION

Julien, Consultant Digital & Media

phenix

Agnès, Head of Data Analysis

Frédéric, Data Scientist

Doctrine

Alin, Spécialiste NLP

Doctolib

Louis, Data Scientist

NOVAGEN
GÉNÉRATEUR D'INNOVATION

Amokrane, Big Data Engineer

ARTEFACT

William, Data Scientist

THALES

Alaric, Digital Transformation Engineer

UBISOFT

Mélanie, Data Scientist

Revolut

Mathilde, Data Analyst

izir

Arounie, Product Marketing

OCTO Technology

Louison, Lead Data Scientist

reezocar

Anne-Laure, Data Scientist

JEMS group

Olivier, Consultant Big Data

Meet our alumni

Marine

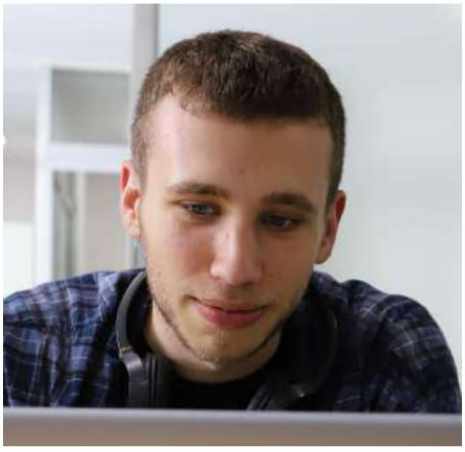
Data & Process Manager, BlaBlaCar

Marine now works in the bus branch of BlaBlaCar. Thanks to the bootcamp, the integration of data into production processes has no secrets for her!

Hélène

Data Scientist, Alliance Gravity Media

After her literary studies, Hélène embarked on a new professional path. The VIVADATA training allowed her to join a digital advertising agency as a data scientist.



Florent

Data scientist, ENGIE

With a master's degree in psychology, Florent decided to switch from studying human brains to studying artificial neural networks. After his training, he joined ENGIE as a data scientist.

Meet our alumni

Mélanie

Data Scientist, Ubisoft

Formerly as a French teacher, Mélanie decided to change her career. During the bootcamp, she gets passionated about NLP and now works on this topic at Ubisoft.

Amokrane

Big Data Engineer, NOVAGEN

Coming from a university in medical imaging, Amokrane has chosen to leave the world of research for working in company. The VIVADATA training allowed him to land his first position at NOVAGEN.

Naomi

Master Data Science for Business, X - HEC

After a bachelor's degree in math, Naomi chose to follow the VIVADATA training. She was then able to realize her dream and integrate the double master data between Polytechnique and HEC.

FAQ

Admission Procedure

What are the conditions for accessing to bootcamp?

You have to be of legal age at the start of the training. That's the only condition we had to set. Obviously, it is possible to register at 17 from the moment your 18th birthday takes place before the start of the training.

What are the steps in the registration process?

The procedure takes place in six steps :

1. You complete the online application form.
2. You receive an invitation for a telephone interview with a member of our admissions team
3. You complete the pre-selection test as soon as possible (see below).
4. We support you for your administrative procedures (requests for financing) and send you your professional training contract.
5. You work on the preparatory work (see below)
6. You join the bootcamp session you have chosen.

Is there any work to be done before the start of the bootcamp?

Yes, we ask you to preliminarily do some researchs and exercises on Python before being accepted into the bootcamp. This step is mandatory, which allows us to make sure, and assure you that the code is not prohibitive to you and you will be able to derive all the benefits of the training. You will need approximately 20 hours to complete this job.

After your registration, you will receive additional preparatory work to do, in order to start the bootcamp in the best conditions.

FAQ

When should I apply?

The earliest would be the best. Our number learners are limited and sessions fill up quickly. Even if the demand is rising, we limit the number of learners for each session because our priority is to ensure the quality training with close support.

When will the next session take place?

The dates of the sessions are available on our website. Concretely, we offer a 10-week session per quarter on each campus and applications generally open 3 months before the start date.

Is it possible to register on a waiting list?

Rather, we invite you to register for a next session and let us know during your interview that you would ideally like to join a next session. Cancellation is rare, but if a place becomes available, we will notify you first.

How do I choose the campus for the bootcamp?

Our training is exactly the same in all campuses. The teachers and teaching assistants are trained in the same way. The course materials and exercises are the same. Our advice in choosing your campus is to select a city where you will enjoy a living for 10 weeks.

FAQ

Finances

What is the price of training?

The price of the face-to-face program is $4,000 for individuals and $7,000 for businesses. You have the option of paying in 12-18 installments free of charge. In case of installments, we ask for a deposit of 25% at the signing of the contract, others installments will be paid latter.

Is VIVADATA recognized as a training organization?

Yes, VIVADATA is a training organization registered with the DIRECCTE Île-de-France.

Do you offer scholarships?

Anyone wishing to follow our training but who does not have the means, either personally or through dedicated funding, is warmly invited to contact us. We will do our best to provide you with a suitable solution.

FAQ

How can I finance the bootcamp?

There are different possibilities for funding from outside organizations. We invite you to contact us directly to study the mechanism that you can mobilize according to your situation.

FAQ

Learner Profiles

I have never programmed, can I still follow the bootcamp?

Of course. Our course is designed to teach you from A to Z all the programming skills necessary to excel at the data professions.

Do you have to have the “math skills” to follow the training?

This can be a plus, but the opposite is not required. Our program has been specially developed to be accessible to a greater number. We firmly believe in the benefits of the plurality of skills and profiles in an area as important as that of artifical intelligence .

If you did math at high school level, that will be more than enough and we will directly teach you basic code which may be useful. We promise there will be no math lessons like at school!

What is the profile of VIVADATA students?

The answer is there isn’t! We welcome students of all ages and from all walks of life: young graduates, students from business and science schools, politicians or engineers, academics, professionals (scientists, journalists, consultants, lawyers, designers), entrepreneurs. Their only common points are the attraction of AI and Big Data, and the understanding that mastery of these tools will be an essential skill in the following years.

The richness of the bootcamp comes from the diversity of profiles, which provides a curious and original data projects. It is also an opportunity to make beautiful meetings and enrich their professional networks.

FAQ

I am over 40. Can I take the bootcamp?

On the contrary, there is no age limit for training in data! We welcome students over 40 or 50 years old. They are able to brilliantly combine their professional experience with their new skills. Again, it all depends on your motivation!

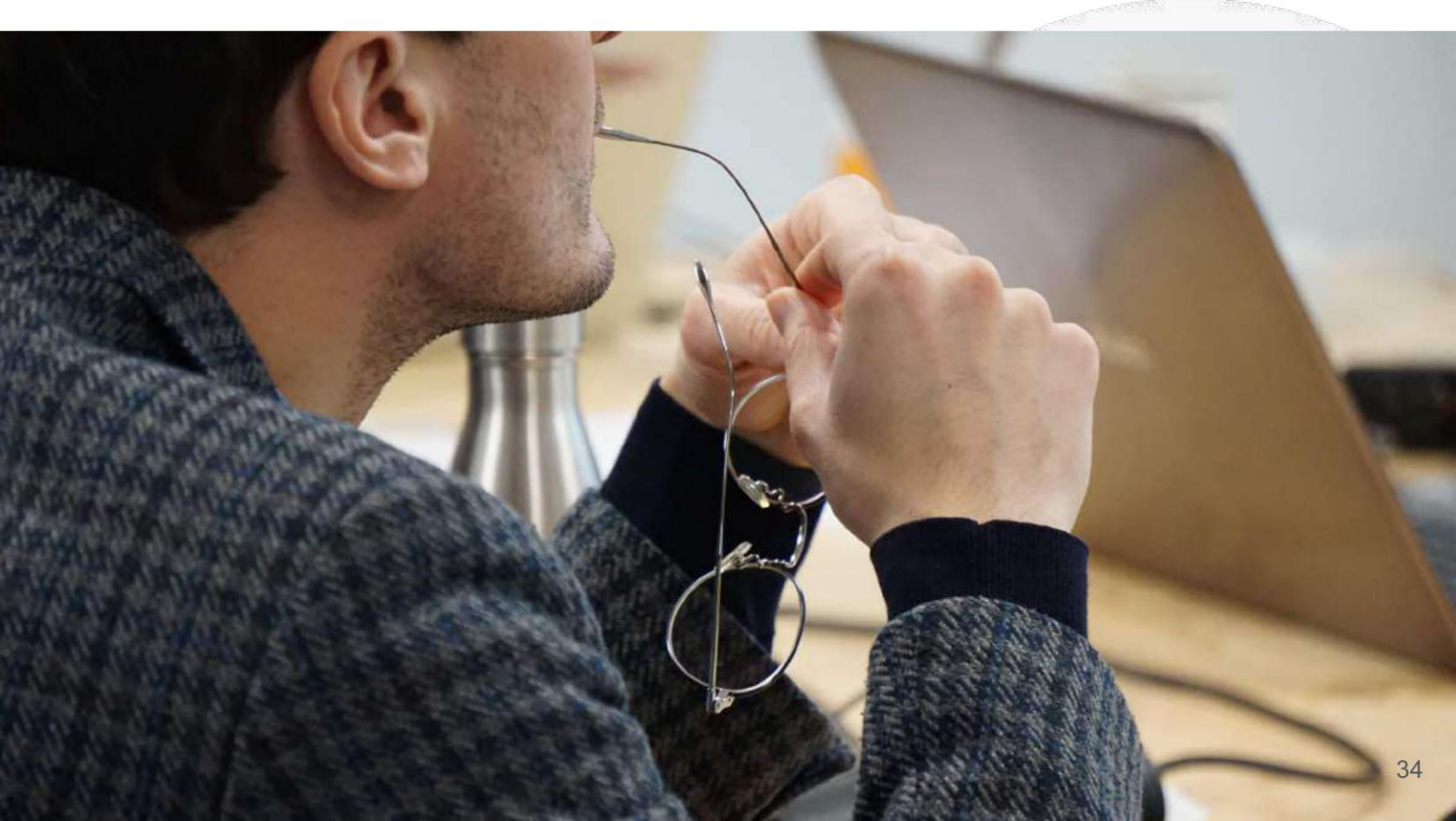
Do I have to bring my computer?

Yes, all students must bring a laptop, preferably under macOS or Linux. If you're on Windows, don't worry: we'll help you will accompany to install Linux on your machine (in dual boot next to Windows).

Please note: a tablet (iPad, Surface, etc.) is not a computer. It is not possible to follow the training correctly with this type of device.

The courses are in which language?

In our campuses, the courses are given in Vietnamese but all the supports and exercises are in English. A good understanding of written English are therefore essential to follow the training in the best conditions.



FAQ

Training content

10 weeks, is it enough ?

Yes, 10 intensive weeks are enough to lay the foundations that will allow you launch in data. The program is intensive with around 400 hours of coding.

In recent years, the bootcamp model has spread all over the world and mostly lasted between 9 and 12 weeks. Obviously, a bootcamp does not claim in no way to replace with a traditional course of several years in data school, where we will have time to deepen many theoretical aspects. The goal of an intensive training is to focus primarily on practical know-how directly usable in business, and to have confidence in the learning ability of each student to continue to work on any data positions.

This formula has been widely proven in the labor market. The reason is simple. The digital professions are both very complex and very evolving. The theory matters less and less and practice more and more. The most important point is to lay a solid foundation because other knowledge can be learned directly in reality like in office or in side projects.

We take care of you by providing educational materials, the right tools to progress and a group of teachers recognized by their pedagogical qualifications. By yourself, you have to work hard during these 10 weeks, but the atmosphere is excellent and motivating!

FAQ

How do you deal with the differences in levels among the students?

Firstly, at the beginning of the admission procedure, we ensure that the level of each session is globally homogeneous. Compulsory pre-selection work is precisely to ensure that everyone can assimilate the basic knowledge.

Secondly, it is perfectly normal for some student to move faster than others, for example those who already had experience with computer programming. However, our experience shows that we generally observe a phenomenon of remedial training during the training.

Thirdly, the most important, our curriculum is designed to enable everyone to move forward at their own pace. We follow everyone's progress in real time in order to be able to target our support. This is not a race. The main thing is that after 10 weeks, everyone will be able to start an artificial intelligence project.

Can I learn the same on the Internet?

Yes, it is completely possible. Today all the necessary information is available online for training in any field. Besides, most of our students firstly tried to train themselves before changing their minds, either by a loss of motivation while working alone at home, or because they wasted time without getting into the heart of the matters quickly.

The problem with the Internet today is precisely that is too much stuff there. By reading the forums, and by browsing the MOOCs, one can quickly feel lost in front of massive information. Which lessons and which tools to learn first? What lessons to follow? How to sort out what is absolutely essential and what can be put aside later?

Our goal is precisely to spare you all this stress. We have developed a pedagogy that helps you to gain momentum and gradually discover the essential technologies to get started in Data. You will measure daily progress, stay motivated and achieve your goals.

FAQ

Organization of the bootcamp

How does a typical day go?

We have chosen the classic bootcamp format, which has proven its worth:

- 9:00–10:30 - Group live-programming lesson for teachers to ask basics of the day.
- 10:30-17:00 - Exercises in pairs (peer-programming) supervised by our teachers and teaching assistants.
- 17:00-18:00 - Collective resumption of important exercises of the day and deepening to introduce some useful concepts in the next day.

Is food provided for lunch?

We offer unlimited coffee and tea. However, we do not offer catering service. We provide you with the list of local addresses in which you can eat.

FAQ

Opportunities and professional integration

Will I be a data scientist at the end of the training?

We are not going to lie to you. Like any professions, data professions require years of practice and experience in order to have a solid mastery of it. You will therefore not be data scientist after 10 weeks of training, but you will be a data scientist in the making. Because you will have successfully completed the most difficult step: that is starting.

Our training aims to give you a solid foundation on data / AI, which will will then allow you to continue to improve, either by yourself or in an experienced team. Like our elders, you can indeed claim an integrate team as a junior, so you will have acquired such good reflexes to progress quickly.

Will I be able to start my own AI project after the bootcamp?

Absolutely! At the end of the bootcamp, you will have become autonomous to launch a project data / AI. Of course, depending on its complexity, it may require you to dig some aspects. But you will have been taught to easily find the right technologies and you can always count on our alumni community to accompany you!

FAQ

Is it easy to find a job after leaving?

The data and AI jobs are the jobs in tension. However, the chance for our alumni to find a job upon leaving depends on their motivation and the work they provided during the training.

On this point, we have to be perfectly honest: it is not possible to guarantee 100% employment at the end of the bootcamp because it is not enough to learn some technical skills. It is also necessary to know how to highlight these skills and be proactive in your job search. We offer you a dedicated support that will help you in your efforts.

What support do you offer to find a job?

Once you have completed the training, we will do everything for your help in your data science job search process

- We broadcast daily the offers that are offered to us by recruiters and facilitate mutual networking.
- We help you present your CV to highlight skills that could facilitate your recruitment.
- We offer you many job interview simulations and test your techniques with data scientists in order to prepare you for the different technical and personal questions that you may be asked.
- Events (workshops, masterclasses) are also organized throughout the year and are an opportunity to network and meet stakeholders who work in successful companies.
- Finally, our alumni community constitutes as many relays and points of contacts who can recommend you, offer job offers or answer your questions. We remind you that you are a part of this community for life, enjoy!

miedu
AI Your Career

VIVADATA

BOOTCAMP IN 10 WEEKS

DATA SCIENCE FULL STACK

miedu.ai

ceo@miedu.ai https://miedu.ai