



**PI SCHOOL**

MACHINE INTELLIGENCE  
MEETS HUMAN CREATIVITY

# School of AI

Enter the world of AI through the front door



[www.picampus-school.com](http://www.picampus-school.com)

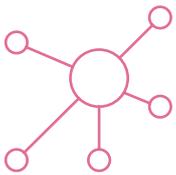
# School of AI

Become an AI expert through our hands-on mentoring programme, working on industry projects.



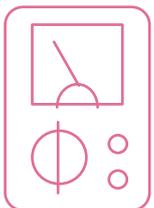
## Enter the world of AI through the front door

- ✓ join the game and become a player in the world of AI
- ✓ learn to think like an AI insider
- ✓ develop your own judgment on AI trends statistics



## Engage with thought leaders from the best industry and research groups

- ✓ make connections with established actors of AI
- ✓ understand the AI industry based on first-hand accounts
- ✓ hear anecdotes and insider stories in fireside chats



## Receive expert advice on your own project

- ✓ speed up your project
- ✓ get pointers to just the right, most up-to-date technique
- ✓ make it to the top of the pack by removing those technical hurdles



## Gain expertise

- ✓ build a background of future-proof fundamentals
- ✓ develop an expertise according to your interests
- ✓ drive your project autonomously after leaving Pi School

# Want to be part of it?

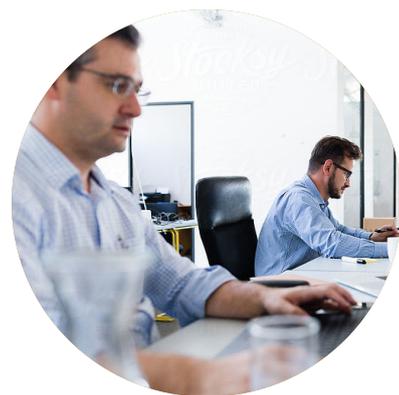


## Apply as a candidate

Are you a student or AI enthusiast ? Apply for one of our **sponsored seats**, 100% free to you, and boost your career in AI. Or if you are employed, convince your company that training in machine learning and AI is the best investment they can make these days. You will receive **mentoring** from the best minds around, from Cambridge, Google, Facebook, Amazon, Carnegie Mellon... All while gaining hands-on AI and machine learning experience and specialist skills from working on your sponsoring company's industry project.

## Train your staff

Unlock the potential of machine learning on your **business projects** and train your engineers at the same time. With our Director, fine-tune your projects to a specific machine learning problem, with **defined deliverables**. Maximise training value by opting for a programme based on **mentoring and individual** sessions. **Full intellectual property and confidentiality** of data and outcome are guaranteed.



## Become a partner

Associate **your brand** with AI at its finest. Sponsor scholarships for bright students on our hands-on AI training course. **Define** your own data science or AI challenge for your sponsored trainees to work on. Name a scholarship recipient, or let us run a selection to spot the most deserving. All our supporters are featured in the **Pi School communication**, both online and offline, and invited to our networking events.



# Schedule



## Before

Are you an enterprise? We will take some time to scope your AI project together



## Weeks 1-2

Programme induction and “Essentials” lectures



## Weeks 3-8

Project work, personalised training, tutoring and mentoring, group activities



## Week 8

Project presentations and final event



## After

Recruitment opportunities with our partners.  
Alumni events at Pi Campus.

## Upcoming session

### START DATE

April 2018

### APPLICATION DEADLINE

March 2018

### DURATION

8 weeks full time

### AUDIENCE

Skilled developers with  
little to no AI experience

### COST

15,000 €  
15 full grants available

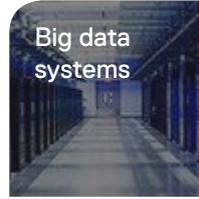
### LOCATION

Pi Campus, Rome

# Areas we cover



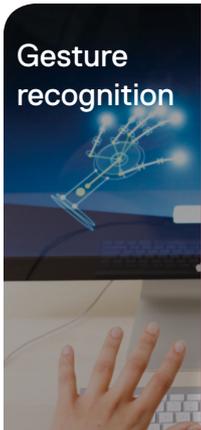
Deep learning



Big data systems



Speech, sound, image, video processing



Gesture recognition

Recommendation systems



Text and document processing

Time series

Data collection and generation



# Example projects

Active learning and CNNs to minimise the annotations required from human aerial cartography annotators

LSTM architecture for information extraction applied to forum posts

Random forest regression to predict the success of movie production

Contextual bandit optimisation scheme to match translation job requests with the best translator for the job

# The method

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We favour individual mentoring and inverted classrooms over classic instructor-led courses, and real-world project work over generic exercises.

This approach delivers the highest added value to the student. In practice, we can do this because we possess the top-notch expertise it requires.

# Mentoring sessions

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During these sessions, trainee and mentor review results obtained so far: plots, diagrams, source code. An in-depth discussion takes place, details are analysed and confronted with the big picture. The trainee receives specific, personalised advice.

## Training advice might consist of

- a pointer to the most useful MOOC, tutorial, documentation, scientific paper at this point in the trainee's learning process
- discussing difficult points, reviewing required maths or statistics
- putting a technique in its wider context to grasp connections and possible improvements

## Project advice might consist of

- analysing performance results
- pointers to algorithms or libraries
- discussing applicable algorithms, sources of data, new features
- devising experiments or tests to run
- planning future work, setting short- and long-term goals



# Program director

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The program director will be at your disposal full-time to: define your strategy, point you to resources, fill knowledge gaps, help when you get stuck and challenge you when you're low on energy!



**Sébastien Bratières**

Director of AI, Translated



Sébastien has over 15 years of experience in the AI industry, ranging from **speech interfaces and chatbots to data science**. He has taught both **professionals and students**, for instance at Ecole Centrale Paris, or LUISS Business School in Rome, and consistently received top evaluations from his students. His PhD in **probabilistic machine learning** was carried out at the University of Cambridge, in one of the **leading research labs** in the world. Sébastien is a regular speaker at international events on machine intelligence.

# Mentors

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Mentors are AI engineers from the best industry labs.

They will coach the students on a weekly basis in addition to the Program Director.



**Lukasz Kaiser**

Researcher, Google Brain



Lukasz' research interests are in **deep learning** applied to natural language processing, and he has recently been working on the use of **attention models and transfer learning**. Lukasz is a core contributor to Tensor2Tensor, an open-source **Tensorflow** library containing implementations of several state-of-the-art neural models. He earned his PhD from RWTH Aachen in 2008 and master's degrees in mathematics and computer science from the University of Wroclaw in 2003.

More  
TBA

We're in touch with several machine learning scientists and practitioners who would like to mentor our students.  
**Stay tuned!**

# Advisory Board

Our advisory board is here to make sure that every single project is solved using bleeding edge technology. They make sure there's no better way to do it.



**Alex Waibel**

Professor of Computer Science  
**Carnegie Mellon University**

A pioneer in neural network speech recognition, Alex invented **time-delay networks** in 1989 during his PhD at **CMU**, after his BSc at **MIT** in 1979. Beside his academic career, he has co-founded 10 successful commercial ventures. One of these, Jibbig, was **acquired by Facebook** in 2013, which led Alex to found the language technologies group at Facebook. Alex has received more prizes and distinctions than you care to read, is a Fellow of the IEEE, and a member of the German Academy of Sciences.



**Hassan Sawaf**

Director of AI, AWS



After his PhD at RWTH Aachen, Hassan started off as a researcher, but quickly spun off a **speech-to-speech translation** company, and served as a CEO or Chief Scientist in several ventures in the speech recognition business. He joined **eBay** in 2013 and left as the Head of AI, before directing AI efforts at **Amazon and now AWS**. Hassan serves as board member and advisor for a number of AI companies he helped found, e.g. Witlingo and Gyant. Hassan carries out angel investments through Keiretzu.



**Marcello Federico**

Head, Human Language  
Translation Unit



A **pioneer in machine translation**, Marcello's research interests are in methods to integrate human and automated translation. Marcello is a **co-founder and scientific advisor** of MateCat and ModernMT, aimed at real-time domain-adaptive **neural machine translation**. Marcello has co-authored over 180 scientific publications in machine translation, language modelling, speech recognition and information retrieval, been on the committees of all major international conferences in his field, and is a senior member of the IEEE and the ACM. Marcello graduated "summa cum laude" from the University of Milan in 1989.

# About Pi School

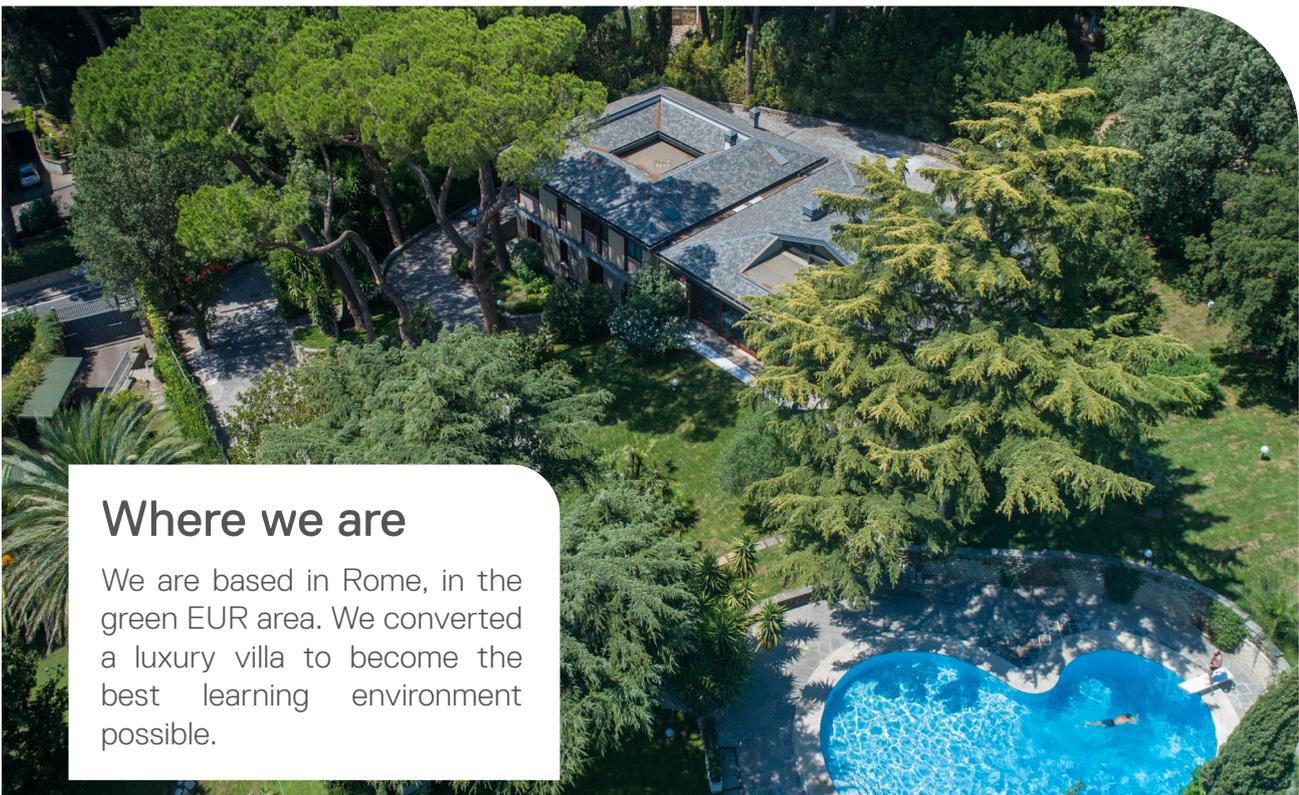
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Pi School is located within Pi Campus, in Rome, Italy.

Pi Campus is both a venture capital fund and a startup district; it invests in growth stage startups, with 28 investments in Italy and worldwide, and hosts some of them. Pi Campus was co-founded in 2007 by Marco Trombetti, a serial entrepreneur and angel investor, based on the commercial success of his first venture, Translated, the online translation platform, co-founded in 1999.

Pi School offers professional education programs and bespoke offerings, in its two specialist areas, which are also the pillars of Pi Campus: innovation, creativity and design, as well as AI and machine learning.

Pi School's Director is Jamshid Alamuti, an expert on innovation and leadership, but above all a transformer and people developer. Jamshid directed the Berlin School of Creative Leadership, and the Frankfurter Allgemeine Business School, where he developed MBA units and C-level programmes. Jamshid has been an independent leadership consultant, speaker and writer since 2010, and co-founded Pi School in 2016 with Marco Trombetti.



## Where we are

We are based in Rome, in the green EUR area. We converted a luxury villa to become the best learning environment possible.

# Other useful info

## Prerequisites

We run the programme in English, so you must be able to work in English.

You must have a formal STEM background in some quantitative discipline (yes, machine learning works with maths!). You must know how to code, preferably in Python, which is the de-facto standard programming language for AI and data science.

We have no specific prerequisite in machine learning or AI; but obviously, it doesn't hurt either! Because our training is entirely personalised, the further you are, the further we will take you.

## Grants selection process

Our partners are interested in sponsoring you if you're a great developer. We will give out grants based on a selection process based on a CV, a 200 word cover letter, and two 1h videoconf technical interviews (on engineering skills, not AI).

## Do I have to stay on-site for the entire 8 weeks?

We recommend you stay through the 8 weeks, as you will reap the most benefits from both lectures and mentoring sessions, but also from informal contacts and exchanges on Pi Campus.

Under special circumstances (for instance for family or professional reasons), you may attend part of the programme remotely, except for the first 2 weeks, which are necessarily on-site.

If financial reasons (e.g. accommodation and maintenance) would prevent you from attending, please contact us, as we have some maintenance grants available.

## What is included ?

- access to lectures and presentations
- teaching material, lecture videos, Jupyter notebooks
- 1:1 mentoring sessions
- a desk in Pi School for the duration of the programme, complete with Apple 27" screen
- AWS and Azure computing infrastructure for compute-intensive jobs
- extra events on Pi Campus: tech talks, evenings with entrepreneurs and influencers
- Pi Campus resident perks: spinning, yoga, tai chi classes, gym, swimming pool and sauna
- snacks and lunches, delivered from a nearby partner restaurant on weekdays

## What is left for me to organise ?

- a laptop
- transfer to Rome and Pi School
- accommodation
- a lot of free time to study and work

# AI Program - Upcoming Session

## START DATE

April 2018

## DURATION

8 weeks

## LOCATION

Pi Campus, Rome

## AUDIENCE

Skilled developers with little to no AI experience

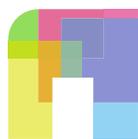
## More info?

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Ask our program director:

**[sebastien@picampus-school.com](mailto:sebastien@picampus-school.com)**



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