

## EAA Web Session

# PyTorch Crash Course for Actuarial Solutions

18 March 2026 | 09:00-16:30 CET | online

### Introduction

The actuarial profession is transforming due to the growing complexity, types and volume of data, which traditional statistical models struggle to analyse effectively. To improve predictive performance and risk assessment, actuaries are increasingly adopting advanced analytical techniques like deep learning, and Python is gaining widespread adoption across various actuarial tasks. Within this context, PyTorch stands out as a flexible, Python-friendly, and open-source deep learning framework developed by Facebook's AI Research lab, designed for flexibility and ease of use in production environments, making it an ideal choice for actuaries transitioning into advanced analytics. Deep learning proficiency in non-linear relationships across a multitude of variables allows for a more granular understanding of risk drivers and their complex interactions. The accessibility to the PyTorch framework gives a profound shift: actuaries are empowered to move beyond merely being users of models developed by others, becoming creators and innovators of advanced analytical solutions themselves. This technology facilitates a shift from simplified risk profiles to more dynamic individual-level predictions, enabling actuaries to develop personalised insurance products and proactive risk management strategies.

### Participants

- Actuarial analysts, consultants, and data scientists working in insurance or finance who want to improve their skills in insurance predictive models.
- Actuarial managers and directors interested in leveraging AI to improve their workflows.
- Anyone with a knowledge of statistical modelling and Python.

Participants should have access to Google Colaboratory and a basic understanding of Python coding.

### Purpose and Nature

The web session aims to equip actuarial professionals with the knowledge and skills behind the PyTorch framework, from fundamental concepts on how to apply this tool to practical actuarial problems and risk assessment. By the end of the course, participants will understand how to exploit and interact with PyTorch to develop deep learning models in actuarial tasks.

## Language

The language of the web session will be English.

## Lecturer

### Claudio Giorgio Giancaterino

Claudio Giancaterino is a qualified Actuary who works during the day with Intesa Sanpaolo Assicurazioni, an Italian Insurance Company based in Milan. In his free time, he is involved in data science activities. Previously, he served as an assistant professor of Insurance Statistics at the Catholic University of Milan. He collaborated with the IAA and IFoA in several working parties and attended data science competitions. He holds workshops and talks at several conferences and meetups. He's a member of the Astin Actuarial Group, and the Italian Actuarial Body Association.

## Preliminary Programme

### Wednesday, 18 March 2026

|             |                                                                                                                                                                                           |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09:00-10:30 | Introduction to PyTorch. Understanding Tensors. Automatic Differentiation (Autograd)                                                                                                      |
| 10:30-10:45 | Break                                                                                                                                                                                     |
| 10:45-12:15 | Neural Networks Modules. Custom Modules. Optimization. Typical Training Loop. Saving and Loading Models.                                                                                  |
| 12:15-13:15 | Break                                                                                                                                                                                     |
| 13:15-14:45 | Actuarial Solutions I: From Feed Forward Neural Network to LocalGLMnet and CANN for insurance pricing.                                                                                    |
| 14:45-15:00 | Break                                                                                                                                                                                     |
| 15:00-16:30 | Actuarial Solutions II: Generative Models, Convolutional Neural Networks and Recurrent Neural Networks for data augmentation, risk assessment and claims/mortality/financial forecasting. |

All the above times are given in CET (Central European Time).

## Fees & Registration

### Early Bird Registration Fee (until 4 February 2026):

- For private customers in the EU: €480.00 + VAT of the billing country (example Germany: €571.20 incl. 19% VAT)
- For private customers outside the EU: €571.20 (incl. 19% VAT)
- For businesses within the EU (excl. Germany, with valid VAT ID): €480.00 (net, reverse charge applies)
- For businesses in Germany: €571.20 (incl. 19% VAT)

### Regular Registration Fee (from 5 February 2026):

- For private customers in the EU: €630.00 + VAT of the billing country (example Germany: €749.70 incl. 19% VAT)

- For private customers outside the EU: €749.70 (incl. 19% VAT)
- For businesses within the EU (excl. Germany, with valid VAT ID): €630.00 (net, reverse charge applies)
- For businesses in Germany: €749.70 (incl. 19% VAT)

#### Important VAT Information:

- For private customers with a billing address in an EU country: VAT will be charged at the applicable rate in the country of the billing address. The final amount, including VAT, will be calculated upon invoicing.
- For customers with a non-EU (third country) billing address: Only a non-company billing address is accepted for VAT compliance reasons. 19% VAT applies to all non-EU private customers.
- For businesses within the EU (excluding Germany), Iceland, Liechtenstein, Norway, Switzerland, and the UK with a valid VAT ID: The reverse charge mechanism applies (net price; VAT will not be charged). Please ensure your valid VAT ID is entered correctly during registration.
- For all customers with a billing address in Germany: 19% VAT applies.

Please submit your registration using this online [booking form](#). Closer to the event, you will receive further login details to join the web session.

Your registration is binding. Cancellation is only possible up to 2 weeks before the first day of the event. If you cancel later, the full participation fee is due. You may appoint someone to take your place but must notify us in advance. EAA has the right to cancel the event if the minimum number of participants is not reached.

We will send you an invoice via email. Please allow a few days for handling. Please always give your invoice number when you effect payment. All bank charges are to be borne by the participant.

Registration is open until two working days before the web session. If registration has already been closed for this web session, please call us or send an email to [contact@actuarial-academy.com](mailto:contact@actuarial-academy.com) in order to find out whether a late registration is still possible.

### **Technical Requirements**

Please check with your IT department if your firewall and computer settings support web session participation (the programme Zoom will be used for this online training). Please also make sure to join the web session with a stable internet connection.

### **CPD**

For this web session, the following CPD credits are available under the CPD scheme of the relevant national actuarial association:

Austria: 6 points

|              |                                             |
|--------------|---------------------------------------------|
| Belgium:     | 6 points                                    |
| Bulgaria:    | 8 points                                    |
| Croatia:     | individual accreditation                    |
| Czechia:     | 6 hours                                     |
| Denmark:     | 6 credits                                   |
| Estonia:     | 6 hours                                     |
| Finland:     | 5 points                                    |
| France:      | 36 points                                   |
| Germany:     | 6 hours                                     |
| Greece:      | 8 points                                    |
| Hungary:     | 6 hours                                     |
| Iceland:     | 6 credits                                   |
| Ireland:     | 6 hours                                     |
| Italy:       | individual accreditation                    |
| Latvia:      | 6 hours                                     |
| Lithuania:   | 6 hours                                     |
| Netherlands: | approx. 6 points (individual accreditation) |
| Norway:      | 6 points                                    |
| Poland:      | 6 hours                                     |
| Portugal:    | 6 hours                                     |
| Serbia:      | 5 hours                                     |
| Slovakia:    | individual accreditation                    |
| Slovenia:    | individual accreditation                    |
| Spain:       | CAC: 6 hours, IAE: 6 hours                  |
| Switzerland: | individual accreditation                    |
| USA:         | SOA (Section B): up to 7.2 hours            |

No responsibility is taken for the accuracy of this information.