NEURAL NETWORKS

FULL-TIME COURSE

Learn to design and develop applications that learn to make rapid decisions. Thereby, you build a skill set to build the future.

SPONSORED EDUCATION

You can attend these AZAV certified courses for free, when the German unemployment office provides you with a training voucher.

ACATO

FIELD THAT IS DRIVING INNOVATION TO AN EXCITING LEVEL

Become one of those few experts, who know how to design the advanced technology behind self-driving cars and walking robots.

Neural networks utilize hybrid designs of software and hardware.

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COURSE SECTIONS

This 6 month full-time course has following 7 core chapters:

- Introduction
- Python Fundamentals
- Neural Networks (NN)
- Machine Learning with NN
- Intelligent System Development
- Real World Use Cases

TECHNICAL REQUIREMENTS

Minimum equipment needed in training:

- Core i3, 4 GB RAM, 50 GB Disk space
- Win 7 / MacOS X / Linux
- Internet: 25 MBit/s & Chrome Browser
- Audio: Headset (Webcam is optional)

WHO SHOULD ATTEND?

It is an intensive but fast approach to machine learning based intelligent networks. Thereby, the technical staff are well equipped to solve complex engineering problems by using AI and ML with their NNE expertise.

The training was specifically designed for people wanting to work in technology and manufacturing industries.

This is a steady path to master this complex area that is now one of the top reasons for employers to hire new staff.

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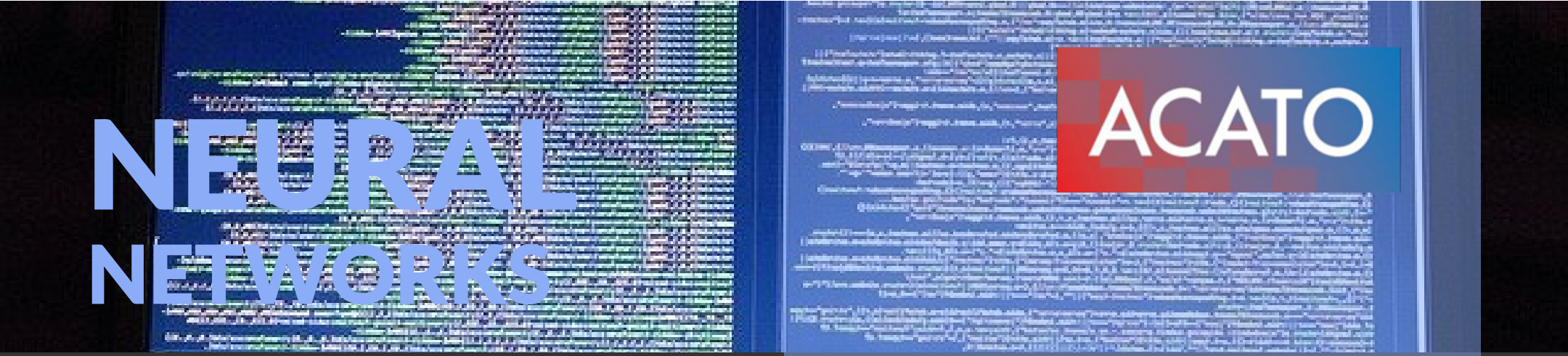

LEARNING ENVIRONMENT

This course is conducted in a **virtual classroom**. The tutors **teach live** via video streaming.

You only need a computer and internet connection to participate in the class.

Breakout groups help **strengthen your skill set** as complex neural network projects often need a team who share the challenge of solving the apparently unsolvable.

Having fun while learning an exiting new array of skills, creates a thirst to gain more knowledge in an area of personal interest.

That is where the platform provides a library with interactive and current information material that expands your scope of knowledge.

WHO WILL TEACH ME?

ACATO is a IT solutions company that develops its own technology.

Its global clients (corporations and security services) have been using to re-skill their existing staff.

Therefore, trainers are first selected based on their niche expertise and talent. Only then trainers are rated based on their ability to up-skill those who are new to this exclusive area of technology.

Neural networks are mission critical in times of urgently needed innovation.

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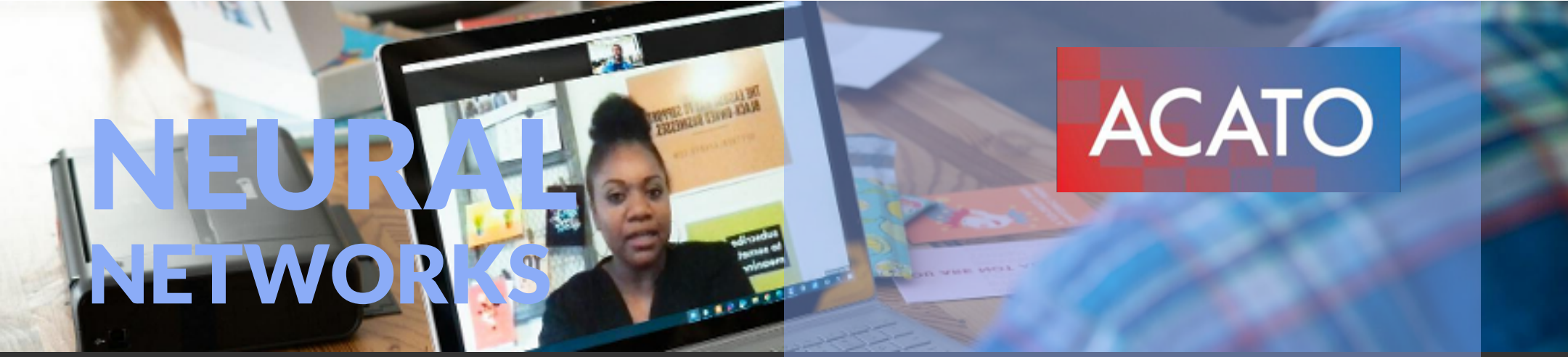

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FREE CONSULTATION

As this kind of course subject is very complex, it is advisable that you get in contact with the **training advisors** of ACATO.

Being an **international training academy**, our team and participants speak multiple languages.

We are happy to **explain this training opportunity** in multiple languages (English, German, Spanish, Turkish, Polish, Ukrainian and Russian).

We will also help you understand the process you need to follow to gain a training voucher for these government sponsored training.

HIRING CS ENGINEERS?

The private sector, charities, NGO's and government facilities are desperate to hire well trained Neural Network Engineers (NNE).

Following organizations are hiring:

- Aerospace Industry
- Car Manufacturers
- Police & Armed Forces
- Software companies
- Innovative Startups
- Chemical and Pharmaceuticals
- Hospitals and Schools
- Retail, Hospitality & Travel

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COURSE STRUCTURE

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DURATION	MODULE	MODULE DESCRIPTION	UNITS/LESSONS			
Week 1-3 (135 UE)	Python	Introduction to Python	• Basics of Programming with Python	• Automation of Simple Processes	• Programming of Modular Python Applications	• Easy Transition to Other Languages (Java, C++ etc.)
Week 4-6 (135 UE)	Python	Understanding and using extend Python skills	• Object-Oriented Programming • Network Programming	• Penetration Testing with Python • Regular Expressions	• Multithreading • XML Processing	• Database Programming • Logging
Week 7-8 (90 UE)	Neural Networks	Introduction to Neural Networks	• Introduction to Neural Networks	• Generating Texts with Neural Networks	• Predicting Sequential Data	• Processing Basics for Audio and Video Data
Week 9 (45 UE)	Neural Networks	Neural Networks	• Understanding Recurrent Neural Networks	• Understanding Convolutional Neural Networks		
Week 10 (45 UE)	ML & NN	ML & NN in Computer Vision	• Machine Learning and NN combined	• Predicting with Multilayer Perceptrons	• Deep Feedforward Networks (DFFN)	• Predicting Prices with DFFN
Week 11-12 (90 UE)	ML & NN	Image Classification Using CNNs	• Recognizing Objects Like Cars and Trucks on Images	• Template matching and feature matching	• Professional object recognition with OpenCV	• Recognizing Handwritten Digits with Neural Networks
Week 13-14 (90 UE)	ML & NN	Removing Noise from Images Using Autoencoders	• Removing Noise from Images Using Autoencoders	• Extracting essential information out of images and videos	• Edge detection	• Making unreadable texts readable again with thresholding
Week 15-16 (90 UE)	ML & NN	Analysis of Video Using LSTM and Computer Vision	• What is Long Short-Term Memory (LSTM)	• Sentiment Analysis of Video Reviews Using LSTM	• Movement detection in videos (Computer Vision)	• Facial Recognition System using NN

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Virtual Academy

LET US HELP YOU NOW

We would like to get in touch with you. Should you have any questions outside of office hours please feel free to send us an email. We will respond timely.

Remember to include a phone number so we can reach you also by phone for a **free consultation call**.

GET IN TOUCH WITH US

Phone: 089/54041070

Email: akademie@acato.de

Chat: academy.acato.de/chat

Availability Hours:

Monday - Friday 8:30-18:00

Saturday - Sunday 10:00 - 12:00

Course Catalogue:

https://academy.acato.de

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