



Venue: Factory of the Future  
Elbfabrik, Magdeburg, Germany

UNESCO UNEVOC Centre Magdeburg

# Expert Meeting on AI and TVET

Be at the forefront of AI-driven education and training



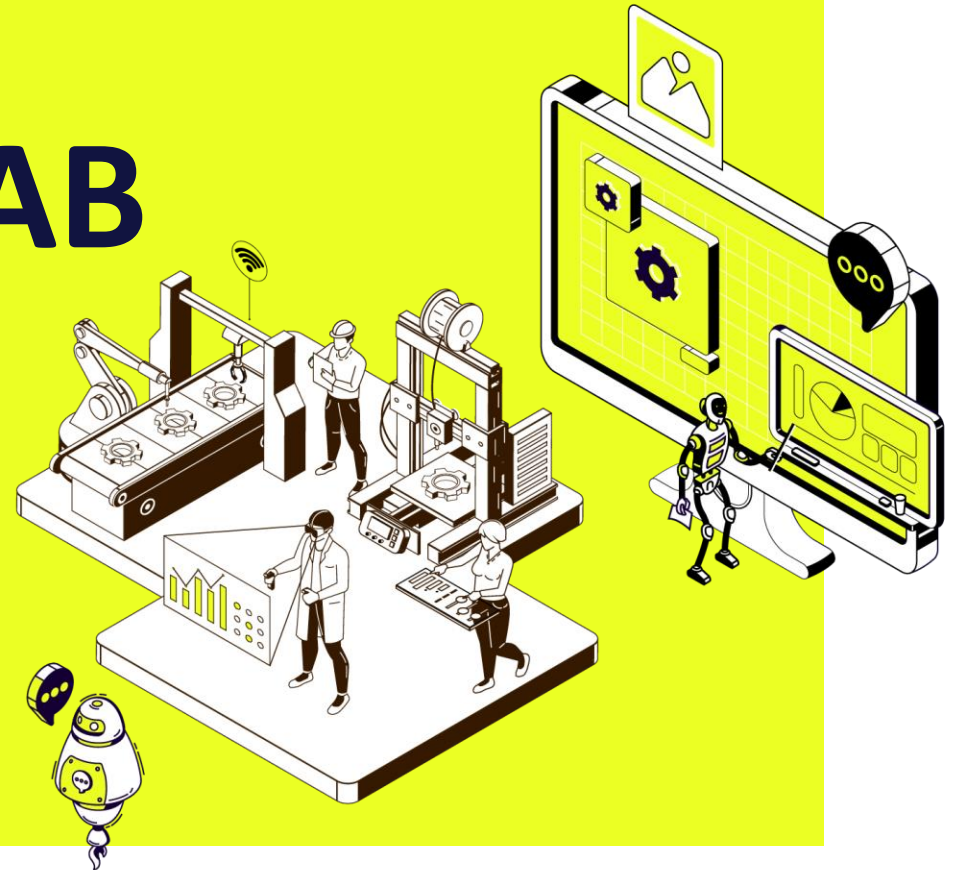
**EXPERIENCE AI:  
WHERE EXPLAINABILITY MEETS  
USABILITY @ AI MANAGEMENT LAB!**

EXPERIENCE ARTIFICIAL INTELLIGENCE (XPAI)

# AI MANAGEMENT LAB

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UNIVERSITY OF APPLIED SCIENCE  
MAGDEBURG-STENDAL

**DEPARTMENT OF ECONOMICS**  
**INSTITUT FOR INDUSTRIAL MANAGEMENT**



# AGENDA



## AI MANAGEMENT LAB

**MOTIVATION**  
**LAYOUT**  
SPECTRUM OF AI APPLICATIONS  
SETTING UP **USE CASES**  
BUILDING **DEMONSTRATORS**



## AI-INFRASTRUCTURE

INHOUSE: **KITT**  
SERVER



## USE CASES

DEMO **GENAI & ROBOTIC**  
USE CASE **MISTY 4 LECTURE**  
  
DEMO **GENAI & CHATBOT**  
USE CASE **ONBOARDING STUDENTS**

# MOTIVATION

The **AI Management Lab** forms a common space in the Altmark for integration and exchange between the university with companies, institutions and administration in order to experience artificial intelligence and develop innovative solutions.

The range of applications of AI is demonstrated in a practical manner at various stations and is intended to encourage interaction.

In addition, the introduction to AI development should be explained easily for companies in order to understand the guidelines of the AI -Act.

DISCOVER | EXPERIENCE ARTIFICIAL INTELLIGENCE (XPAI)

# AI PLAYGROUND & SCIENCE SPACE



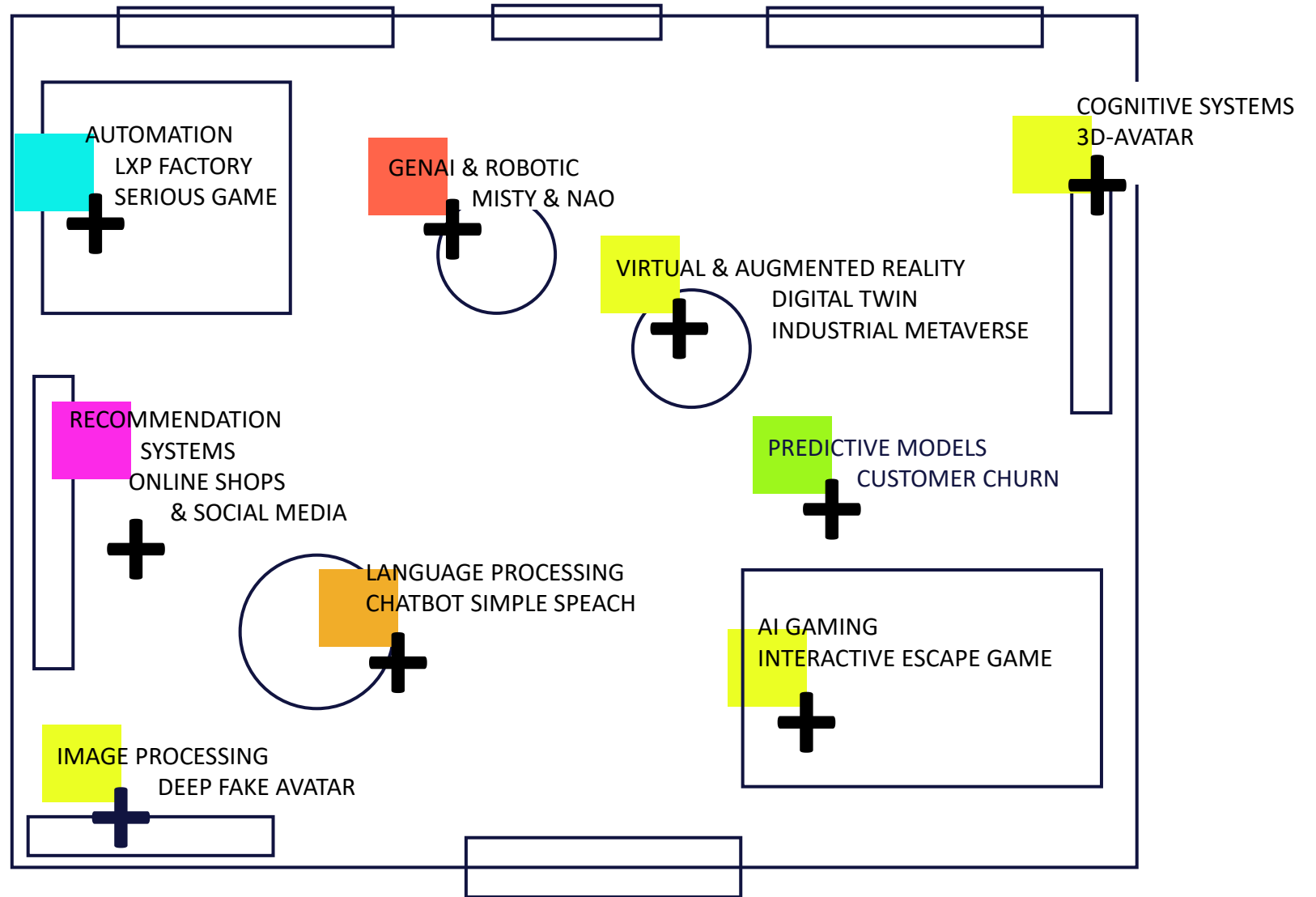
**EXPLAINABILITY ARTIFICIAL INTELLIGENCE (XAI) &  
USABILITY ARTIFICIAL INTELLIGENCE (UXAI)**

LAB | LOCATION STENDAL + DIGITAL TWIN | WEB



AI MANAGEMENT LAB

# LAYOUT

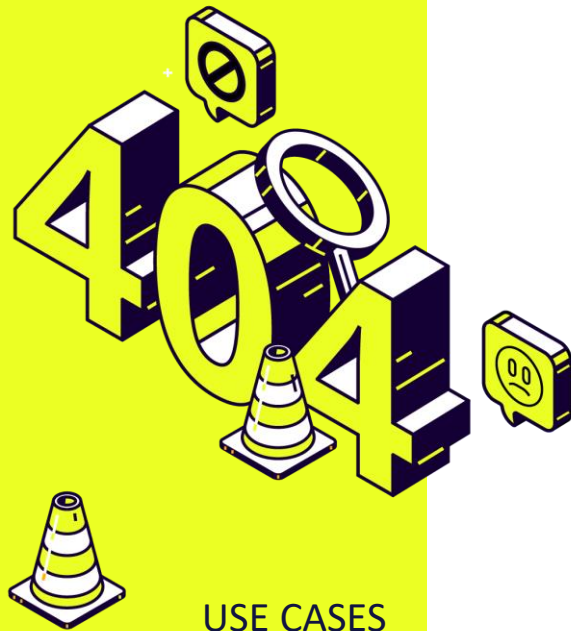


STATIONS WITH DEMONSTRATORS IN THE APPLICATION OF AI

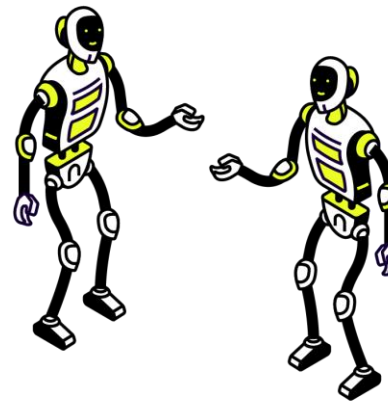
FOCUS

# LAB

EXPLAINABILITY  
AI (XAI)

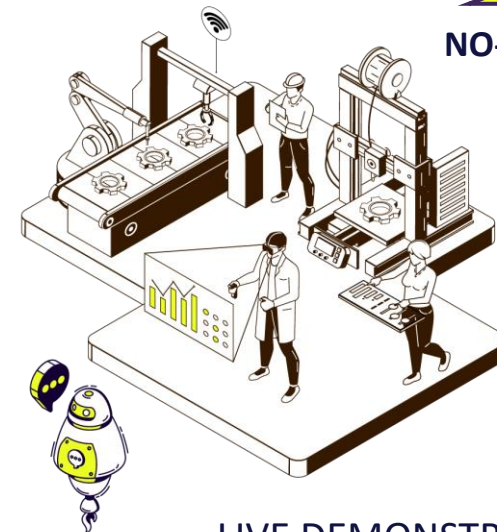


+



DESIGN & DEVELOP  
AI SOLUTIONS

=



LIVE DEMONSTRATION TO  
ENCOURAGE TO USE & CREATE  
ADDITIONAL AI SOLUTIONS

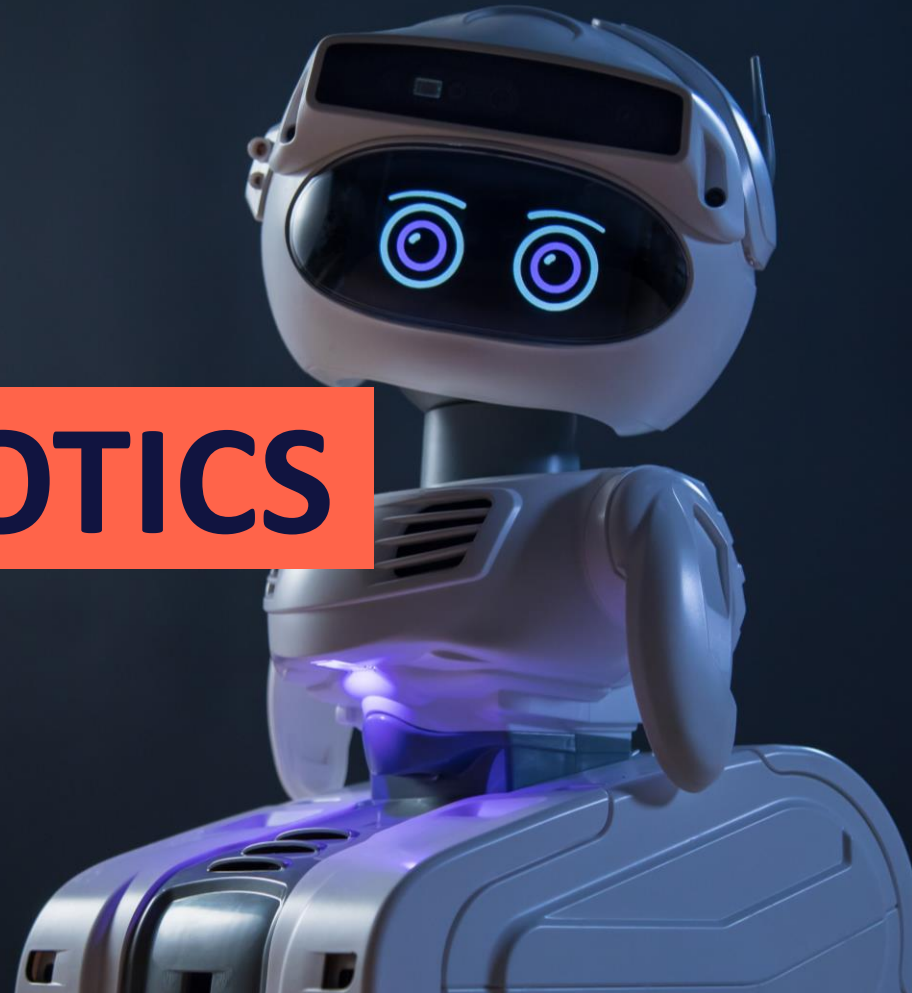
# HOW DO WE + DEMONSTRATE?



# GENAI & ROBOTICS



SAY HI! 2 MISTY II THE ROBOT





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# MISTY

GENAI & ROBOTIC

EXPLORE APPLICATIONS IN  
CODING EDUCATION &  
AUTOMATION



# FACTS ABOUT + THE ROBOT

## KEY FEATURES

### ADVANCED AI CAPABILITIES

> Misty can learn, adapt & interact intelligently with its environment.

### CUSTOMIZABLE SKILLS

> Misty can be programmed to be a: teaching assistant, a coding companion or whatever you can imagine,

### LEARN WITH MISTY

> Misty has various coding capabilities, it's an excellent tool for beginners as well as experienced programmers.

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# MISTY

GENAI & ROBOTIC



# SMART AI TUTOR + FOR STUDENTS

## THE IDEA

Imagine a classroom where learning is engaging, interactive, and available anytime! **Misty**, can transform traditional teaching by becoming an AI-powered learning companion/ teaching assistant.

## SOLUTION

- Connection to a LLM enables a more natural conversation
- Can be grounded to specific knowledge bases
- Can be connected to a database to store the conversations
- Almost instant feedback and personalised explanations

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# MISTY

GENAI & ROBOTIC



## DEMO: SETTING UP



### DETAILS OF THE PROCESS

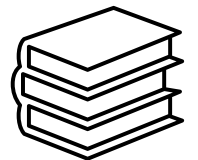
1. **QUERY** RECORD AUDIO FILE (WAV.FORMAT)



2. **TRANSFORM** SPEECH TO TEXT (OPENAI WHISPER-1)



3. **ADD** EXTRA KNOWLEGDE FROM WWW  
(DUCKDUCKGO API)



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# MISTY

GENAI & ROBOTIC



## DEMO: SETTING UP

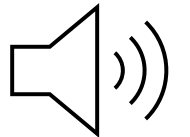


PROCESS DETAIL Continued..

4. **USER QUERY** + WWW SEARCH RESULTS -> GPT-4o



5. **RESPONSE TEXT TO SPEECH** (OPENAI)



6. **RESPONSE** AUDIO PLAYED BY MISTY

Using the saved Q&A in a DB one can,

1. IDENTIFY ACTIVE STUDENTS
2. WHO NEEDS SUPPORT ?
3. FAQs -> (FOCUS FOR THE NEXT LECTURE)
4. VALIDATE WITH STUDENT PERFORMANCE IN CLASS

# GENAI & CHATBOT



SAY HI! 2 BOTTY THE 3D-AVATAR



TRY>

AI MANAGEMENT LAB

# BOTTY

GENAI & CHATBOT



# + 3D REAL-TIME WEB BASED AVATAR

## THE IDEA

Sometimes it is difficult, especially as an international student, to enroll at a new university. Because not all important steps and information are listed together on the website. Finding the right contact point can therefore be quite difficult.

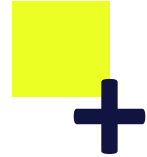
## THE SOLUTION

We have created an onboarding assistant to support students, especially during their introductory week. He should be available alongside our study coaches at any time and location.

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# BOTTY

GENAI & CHATBOT



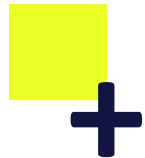
# DEMO: SETTING UP

## DETAILS OF THE PROCESS

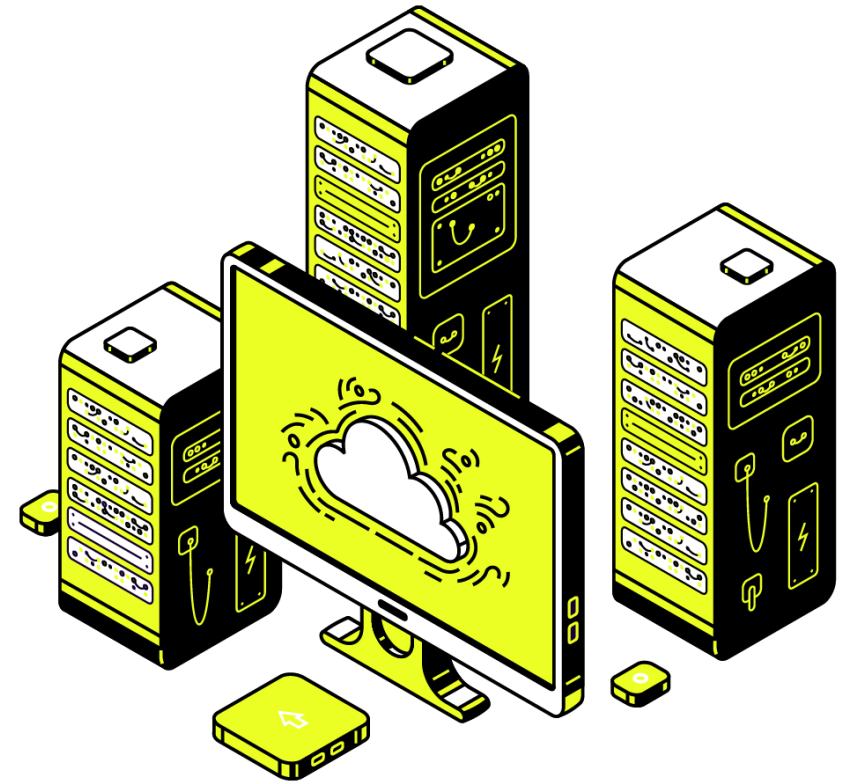
1. AVATAR IS **CREATED BY COMBINING DIFFERENT 3D OBJECTS & AI GENERATED TEXTUR**
2. **ADD SOME ACTIONS SUCH AS BLINKING THE EYES OR LOOKING AT THE EVENT**
3. **CREATE A SYSTEM PROMPT**
4. **ADD IMPORTANT INFORMATION FROM DATABASE & SCRAPING FROM SELECTED WEBSITES**
5. **CONNECT WITH OPENAI KEY (GPT-4O REALTIME) VIA AN EXCLUSIVE API**
6. **EXPORT & RUN THE DEMO**

INHOUSE

# KITT AI-INFRASTRUCTUR



FOR RESEARCH, TECHNOLOGY AND  
TRANSFORMATION AT MAGDEBURG-  
STENDAL UNIVERSITY OF APPLIED SCIENCE





IT-INFRASTRUCTURE

# ARCHITECTURE KIT

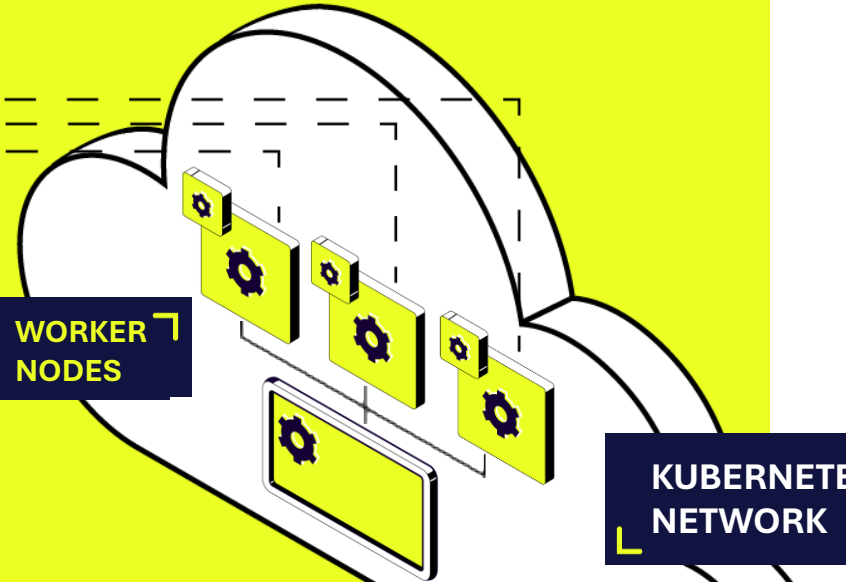
**USERS ON  
THE INTERNET**



**USER**



**PROXY**



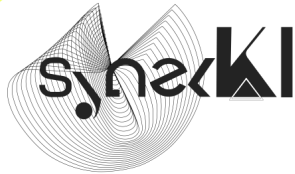
**WORKER  
NODES**

**KUBERNETES  
NETWORK**


**MASTER  
NODE** **DGX-H100**  
8GPU, 640GB VRAM  
112 CPUs, 2TB RAM

UNIVERSITY NETWORK

# TEAM



GET IN TOUCH



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**KI & FINANCE**

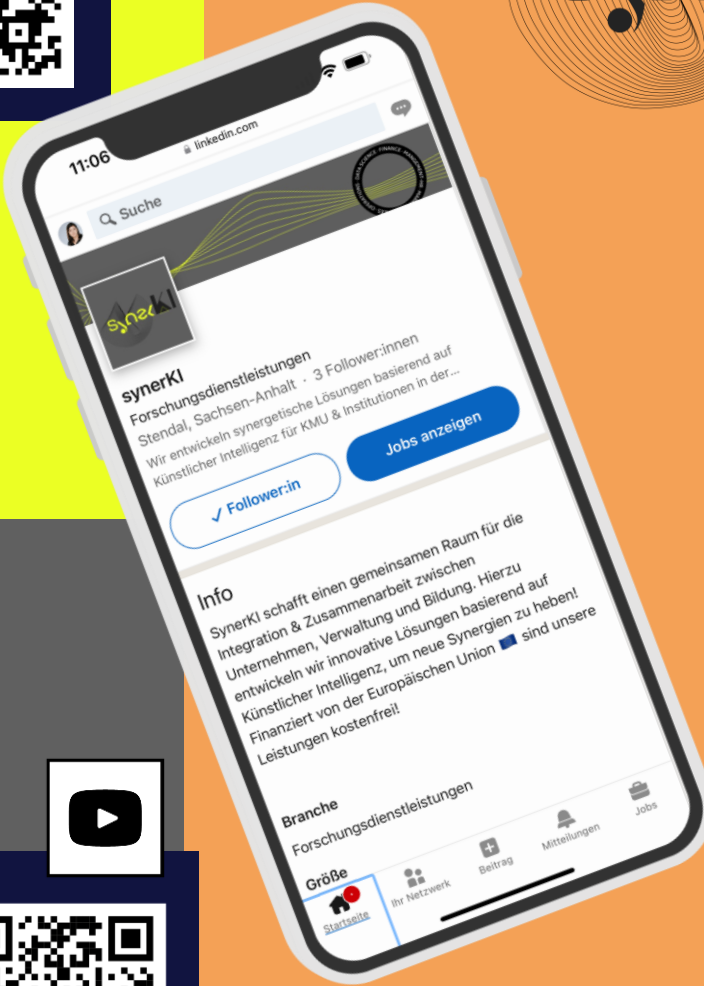
jonas.schaeuble@h2.de



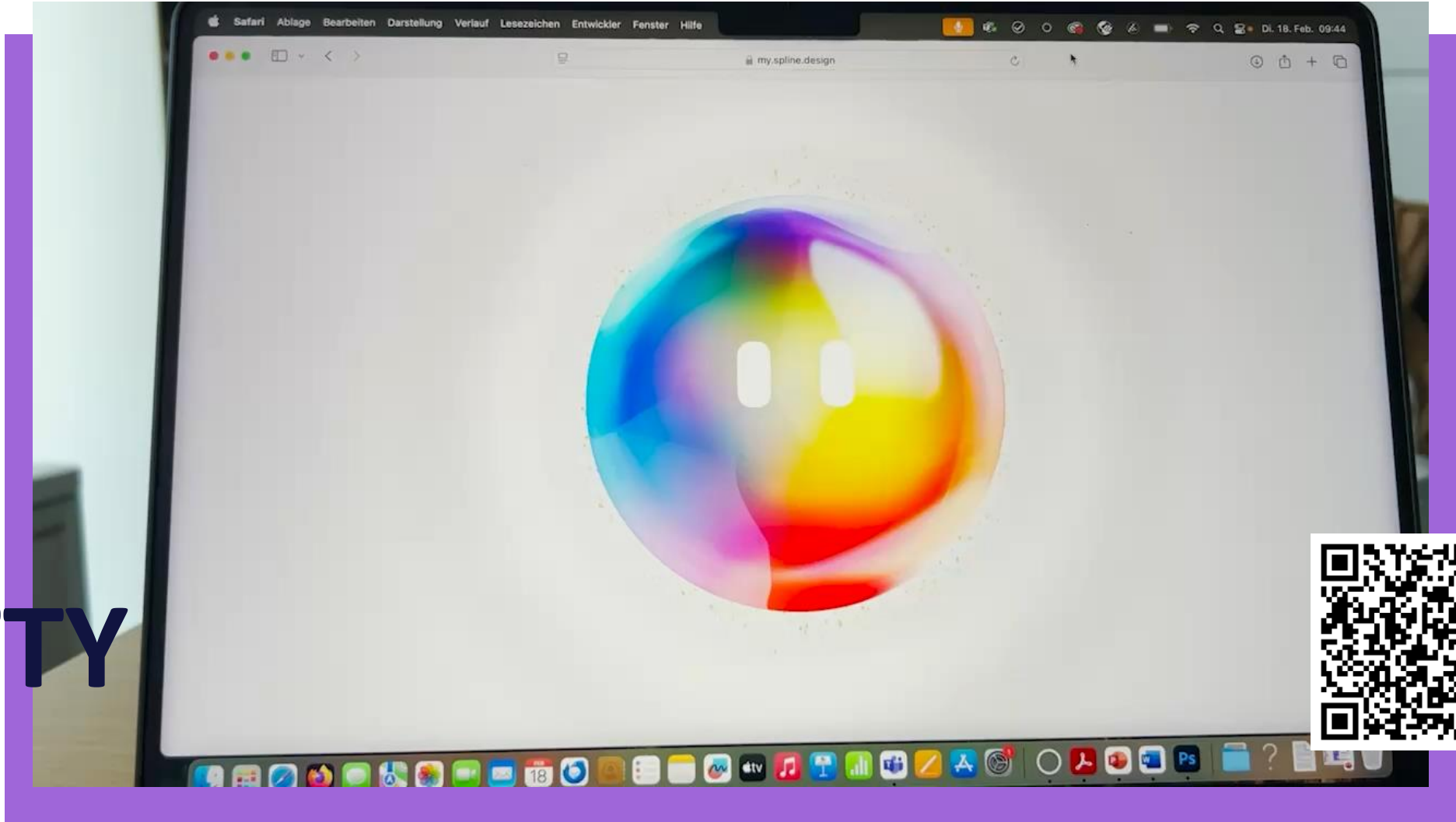
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TRY>

**+ BOTTY**