Welcome

Master of Science in Digital Humanities

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EPFL

Social Networks
Culture or Technology?

EPFL

Music
Culture or Technology?
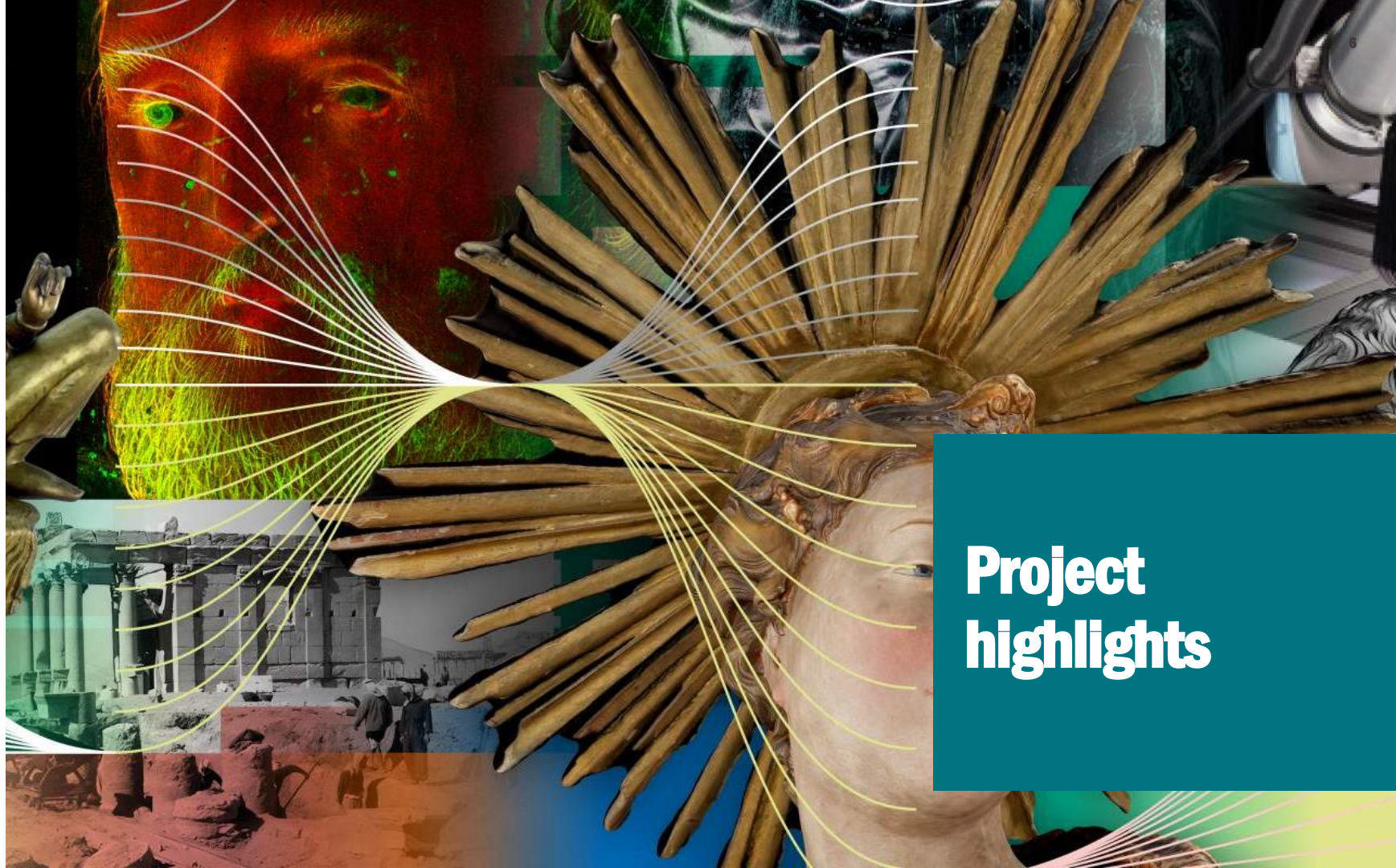
Video Games
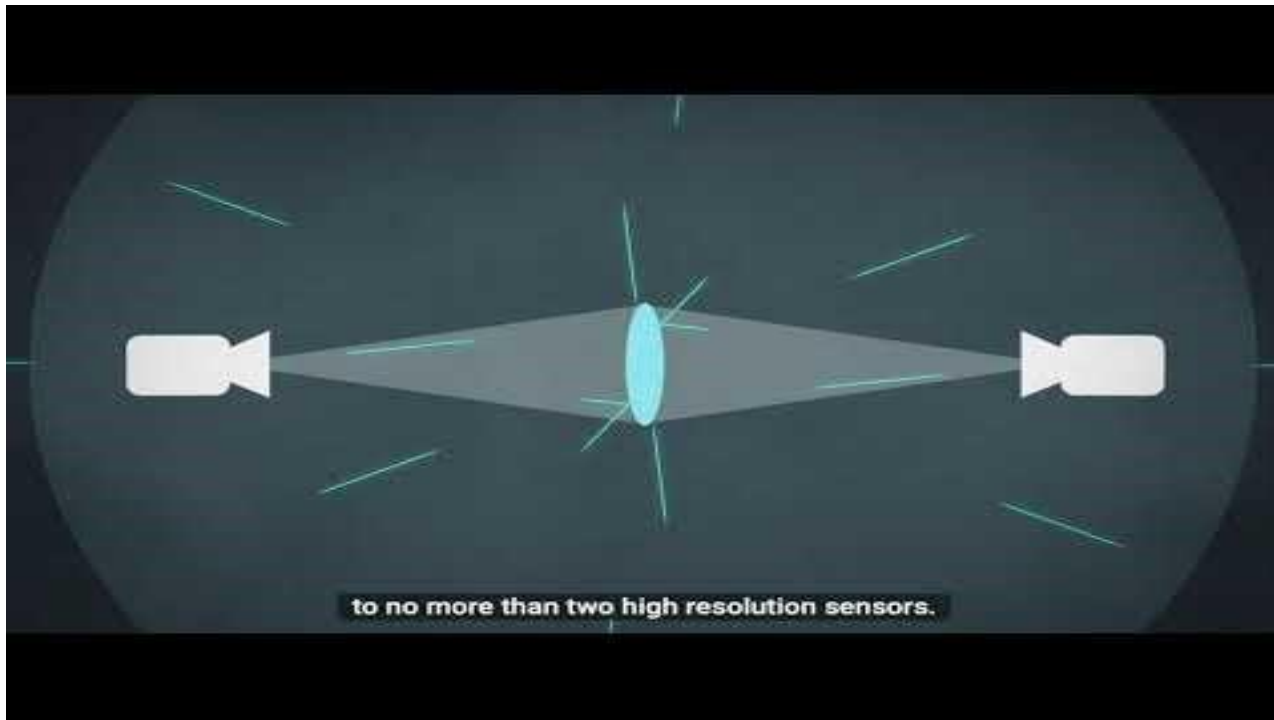## Culture or Technology?
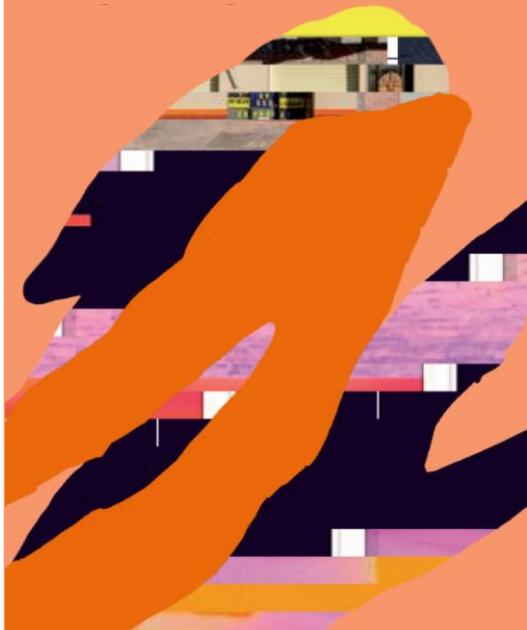
Museums
Culture or Technology?

EPFL

Project highlights

ScanVan

Thanks to the support of the Swiss National Fund NRP 75 Big Data, the ScanVan project has developed a new "spherical" camera and a dedicated vehicle to allow the easy digitisation of Swiss and European cities.
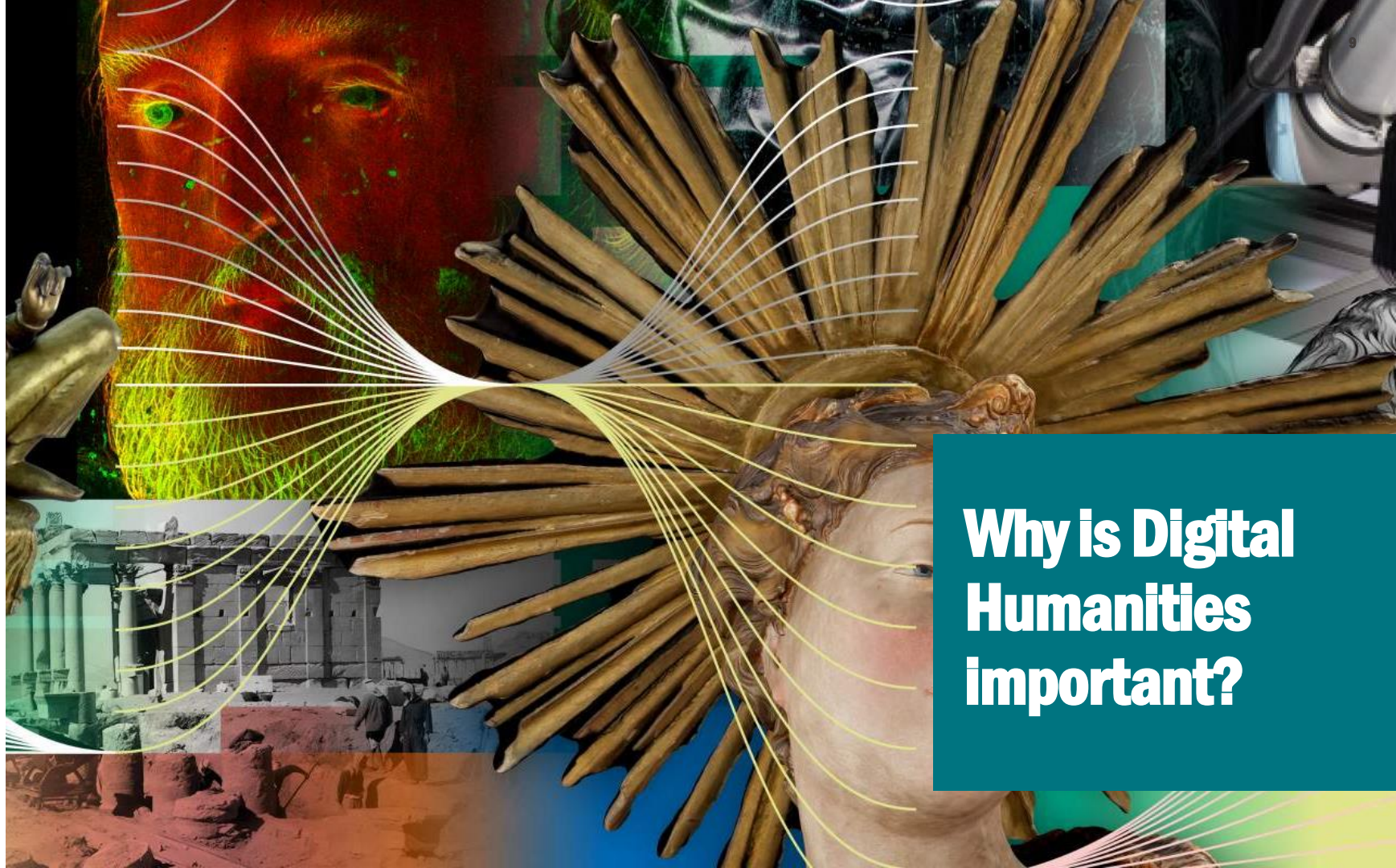

to no more than two high resolution sensors.

2:15 minutes

Decoding Beethoven's music style using data science

What makes Beethoven sound like Beethoven? Researchers from the Digital & Cognitive Musicology Lab have completed a first analysis of Beethoven's writing style, applying statistical techniques to unlock recurring patterns.

2:35 minutes

Why is Digital Humanities important?

Large talent gap in the CCSI

- **Cultural and Creative Sectors and Industries (CCSI)**

- Cultural and creative studies in European universities are mostly focused on the 'creative part'

- **Graduates** are not always ready to enter the modern labour market as they **lack cross-sectoral** (entrepreneurial, **digital** and financial management) **skills**.

- **These skills are needed for innovation** in both emerging sub-sectors and very mature ones that undergo a profound digital transformation.

DH MASTER PRESENTATION 2024

The CCSI includes...

Architecture	Audiovisual (including film, television, software, video games, multimedia and recorded music)	Cultural Heritage (tangible and intangible)	Creativity-driven high-end industries and fashion	Advertising
Design	Music	Libraries and Museums	Radio and Visual Arts	Literature	The Arts
Festivals	Books and Publishing (newspapers and magazines)	Archives	Performing Arts (including theatre and dance)	Artistic Crafts

Source: Official Journal of the European Union 28.5.2021, Factsheet on the KIC on Cultural and Creative Sectors and Industries (CCSI)

Our graduates meet these needs:
Industry, PhD, teaching

DH Alumni

First DH Alumni event in 2023

not as a doctor.

4:04 minutes

DH Alumni

What are they doing now?

" I really liked the Cultural Data Sculpting class by Prof. Kenderine at the Laboratory of Experimental Museology, and now I'm doing my PhD there. "

— Giacomo Alliata, PhD Student – EPFL

" I work in a mapping company. I analyze the data and look into how people actually behave in organizations, what are their roles and how they distribute work amongst each other. "

— Robin Szymczak, Data Scientist – Peerdom

" I'm mainly doing work related to front end development in this Lausanne based startup. "

— Yuanhui Lin, Web developer – quanthome SA

" I build machine learning models to create value for the company in the logistic process. "

— Hakim Invernizzi, Data Scientist – Digitec Galaxus

" I am doing my PhD at the Digital Visual Studies Lab researching computer vision methods and links to AI, to art and art history. "

— Ludovica Schaerf, PhD Student – University of Zurich / Max Planck Institute

DH Alumni testimonies

I am the **Head of Data** in a music industry start-up in Paris (it's called Groover).

I am running a team of Data Scientists and Engineers to **create Machine Learning applications** such as a recommendation system matching artists and music industry professionals or an audio tagging tool to help artists understand the genres and trends they are operating in.

My day-to-day consists of staying up to date with **ML research** through paper presentations and prototypes, setting and maintaining **production infrastructure** for our current models, **creating analytics** for everyone in the company and provide external data to take **strategic decisions** with respect to the company's competition.
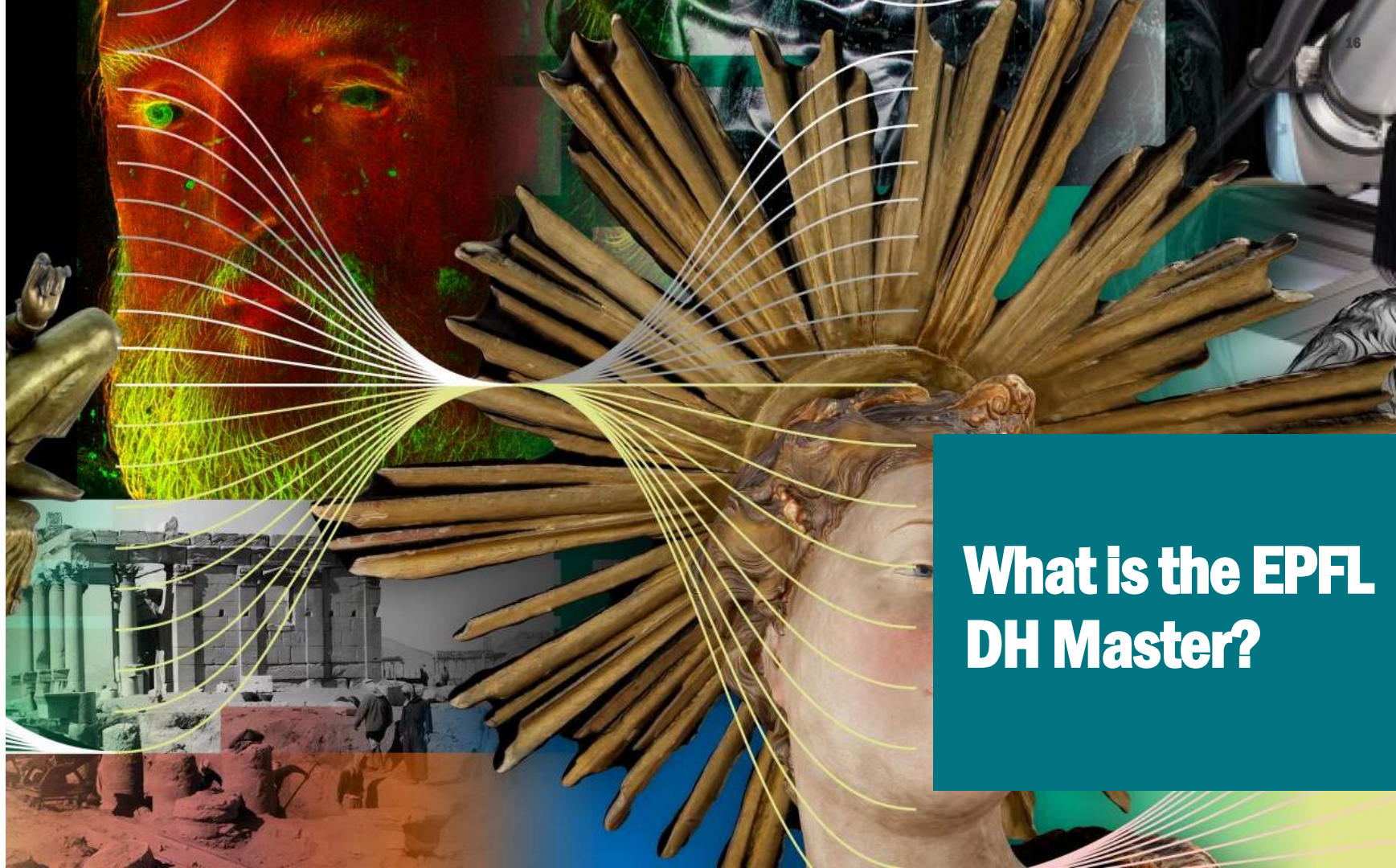
I am an **Information Management and Data Science Officer** at the Federation of the Red Cross and Red Crescent Societies.
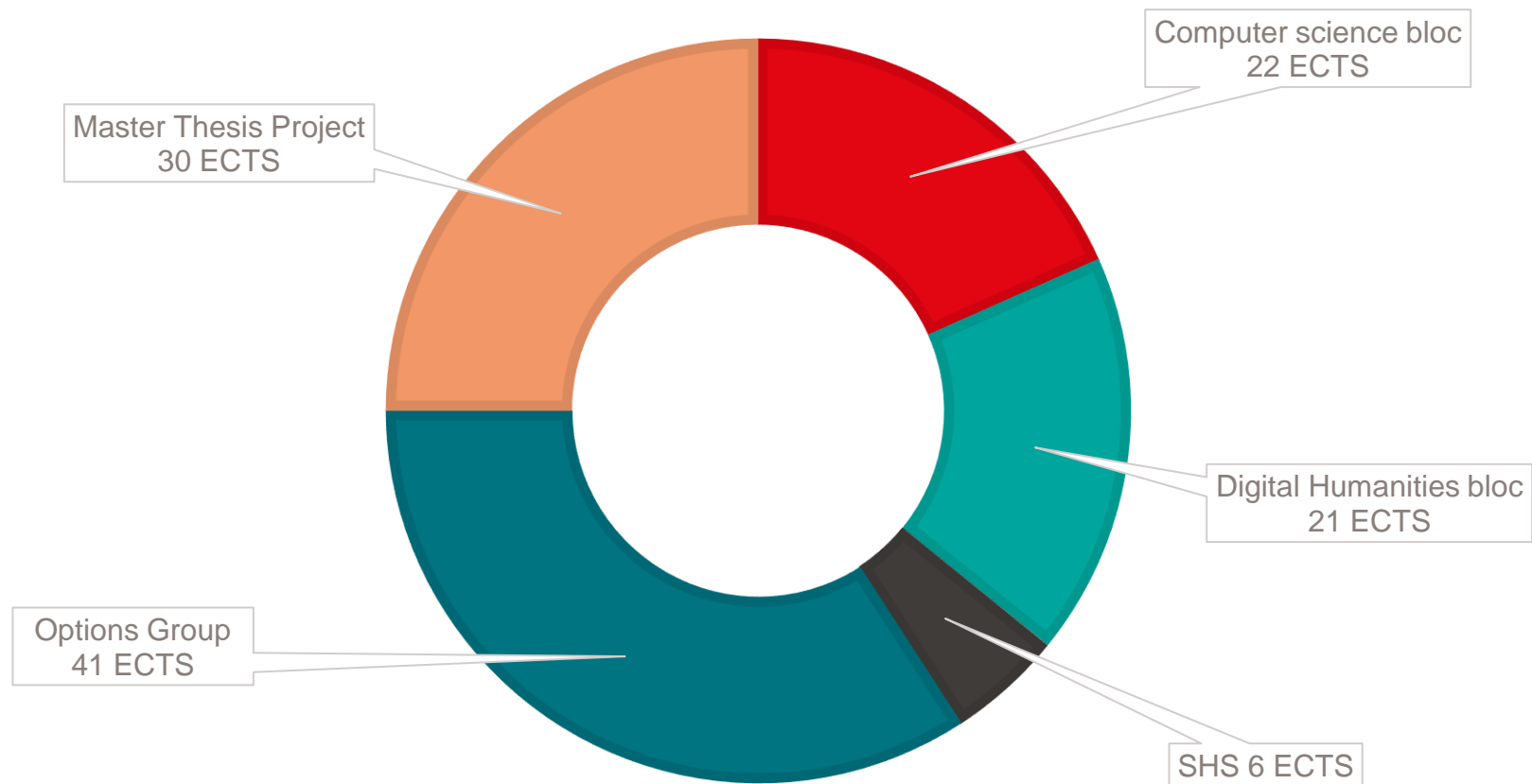
The Red Cross and Red Crescent Movement is recognised for responding to disasters around the globe, and their Information Management teams are the ones in charge of **providing data insights to operational teams** in shape of maps, dashboards, analysis and platforms.

In my current role, I support with **data science projects** aimed to improve the effectivity of our operations. This goes from **technical developments** to strategic alliances, from **processing big data** and proposing **machine learning models**, passing through the design and management of platforms for early warning, to university-industry partnership management.

Being a data scientist at the Red Cross and Red Crescent Movement has been an honour, and although it was a quite unique opportunity at the time, I think now **opportunities are only growing**, searching for profiles that besides being technically capable are **informed and interested on the social implications of their solutions** - and I think digital humanities engineers are in a good starting position to offer that.

EPFL

What is the EPFL DH Master?

DH Master curriculum

Computer science bloc
22 ECTS

Master Thesis Project
30 ECTS

Digital Humanities bloc
21 ECTS

Options Group
41 ECTS

SHS 6 ECTS

DH MASTER PRESENTATION 2024

DH Master curriculum

Allows for maximum flexibility

- Unique offer of core, project-based courses
- Students can choose optional courses out of a large list of classes from many other sections
- Students can choose to do a semester project in the options group
- Credits can be taken outside of the study plan, for example classes at UNIL (maximum 15 ECTS).
- The mandatory internship can be done:
  - Short 8-week summer internship
  - One semester internship (4 to 6 months)
  - Master thesis project done in industry or in an institution

Core courses and faculty

Computer Science Block
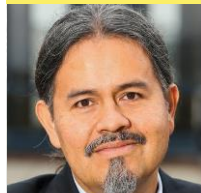
Daniel Gatica-Perez
Computational Social Media

Frédéric Kaplan
Foundations of Digital Humanities

Mathieu Salzmann
Machine Learning for DH

Bob West
Applied Data Analysis

Digital Humanities Block

Jérôme Baudry
History and the Digital

Nicolas Henchoz
Design research for digital innovation

Sarah Kenderdine
Cultural Data Sculpting

Martin Rohrmeier
Digital Musicology

New optional DH classes

David Javet
Game Design & Prototyping

Johan Rochel
Ethics and law of AI

Internships

In industry or media/cultural institutions - 3 options :
- **8-week internship over the summer**
- **One semester (4 to 6 months)**
- **Master thesis project**

Internships can be in many different industries in Switzerland and abroad :

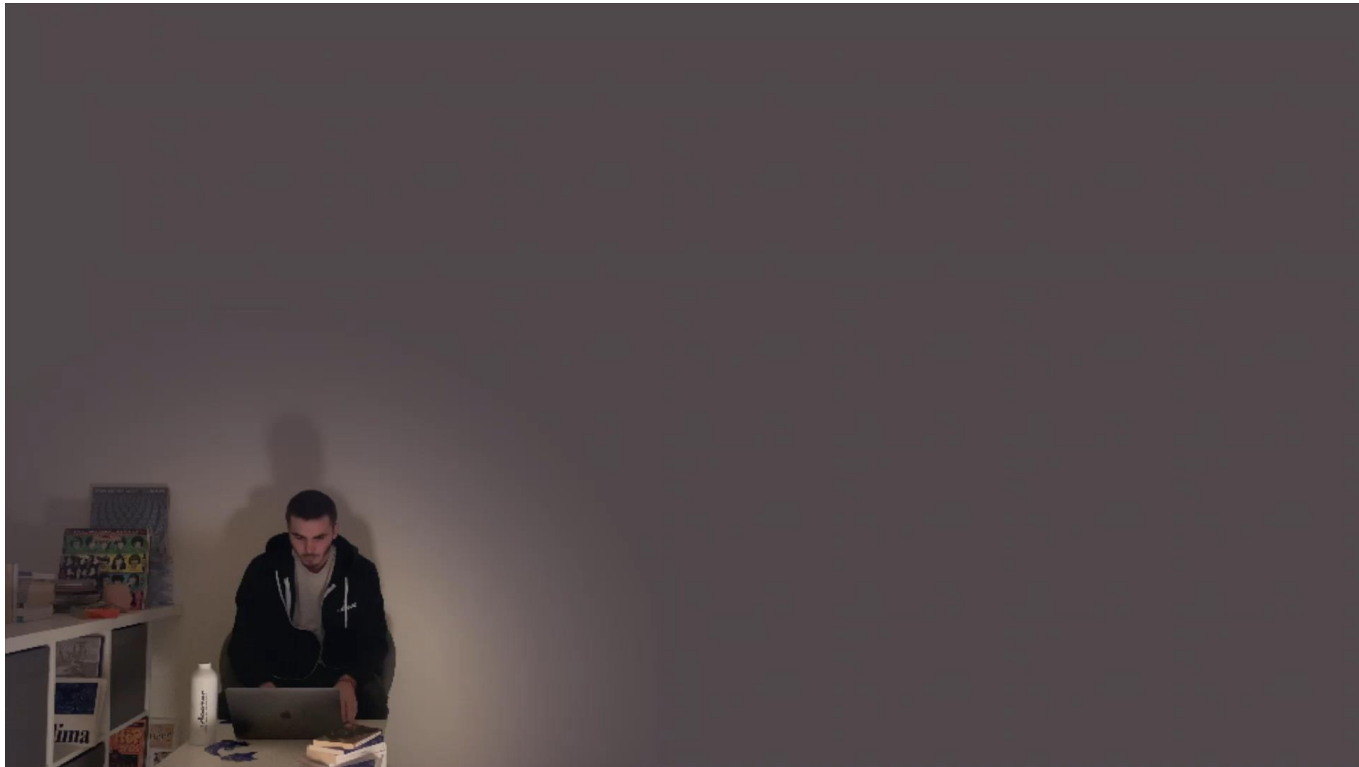- Media & cultural institutions
- Industry
- Humanitarian organizations

See what our students did during their internships –
3 minute video reports

https://go.epfl.ch/dhinternships

Internships - examples

Music Industry - Deezer
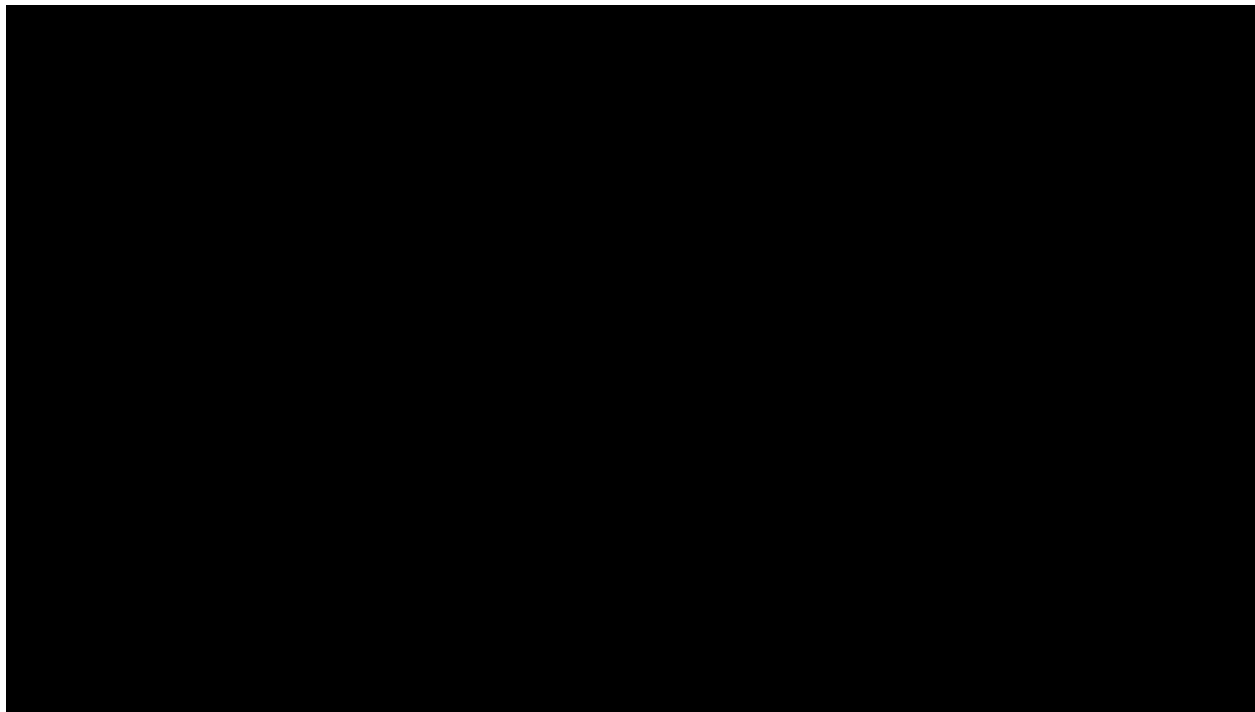Research project in natural language processing

58 seconds

Internships - examples

Cultural institution – Institut d'Histoire de l'Art, Paris
Creation of a machine readable dataset of Paris' city directories

40 seconds

Internships - examples

Film industry – Largo a.i (start-up in EPFL's quartier de l'innovation)
Project in artificial intelligence working on neural network architecture

32 seconds

Internships (Switzerland & all over the world)

Examples in Media & cultural institutions

- RTS – Radio Television Suisse, Lausanne
- Art Recognition AG (evaluation of art authenticity), Zurich
- Peter Lang Group AG (publishing company), Bern
- Largo Films SA (startup in the film industry), Lausanne
- Agence Mediafaune, (Digital Communication), France
- Fondazione Giorgio Cini, Italy
- Centre Allemand d'Histoire de l'Art, France
- BnF - Bibliothèque Nationale de France, France
- Harvard Library, USA
- INHA - Institut national d'histoire de l'art, France
- Dunhuang Academy, China
- Archives de l'Etat du Valais, Sion
- CERN, Geneva
- EBU – European Broadcasting Union, Geneva
- Bibliotheca Hertziana – Max Planck Institute for Art History, Italy

Examples in Humanitarian organizations

- Int. Federation Red Cross (IFRC), Geneva

Examples in Industry

- DataGalaxy (NLP & UX), France
- Yang Technology AG (Oppo), Zurich
- Tencent AI Lab, China
- Visium Technologies (ML & AI), Lausanne
- Allegro (on-line e-commerce platform), Poland
- Alibaba Cloud, China
- ABB, Baden
- AXA insurance, Lausanne
- Philip Morris International, Lausanne
- Oracle, Zurich

Examples in Financial institutions

- Pictet Asset Management (private banking), Geneva
- BNS – Banque Nationale Suisse, Zurich
- MET AG (Trading Company), Zug

Research - Our students publish papers

Recent examples

Student name	Graduation year	Publication type (journal, conference, workshop, book chapter)	Publication title	Author list	Publication details
Yuanhui Lin	2022	Journal	Characterizing Swiss Alpine Lakes: from Wikipedia to Citizen Science	Y. Lin and D. Gatica-Perez	ACM Journal on Computing and Sustainable Societies, Vol. 1, No. 2, Dec. 2023
Haeeun Kim	2022	Conference	Referencing in YouTube Knowledge Communication Videos	H. Kim and D. Gatica-Perez	ACM International Conference on Interactive Media Experiences (IMX), Nantes, Jun. 2023.
Aurel Maeder	2023	Conference	Learning about Social Context from Smartphone Data: Generalization Across Countries and Daily Life Moments	A. Maeder, L. Meegahapola, and D. Gatica-Perez	ACM Conference on Human Factors in Computing Systems (CHI), Honolulu, May 2024
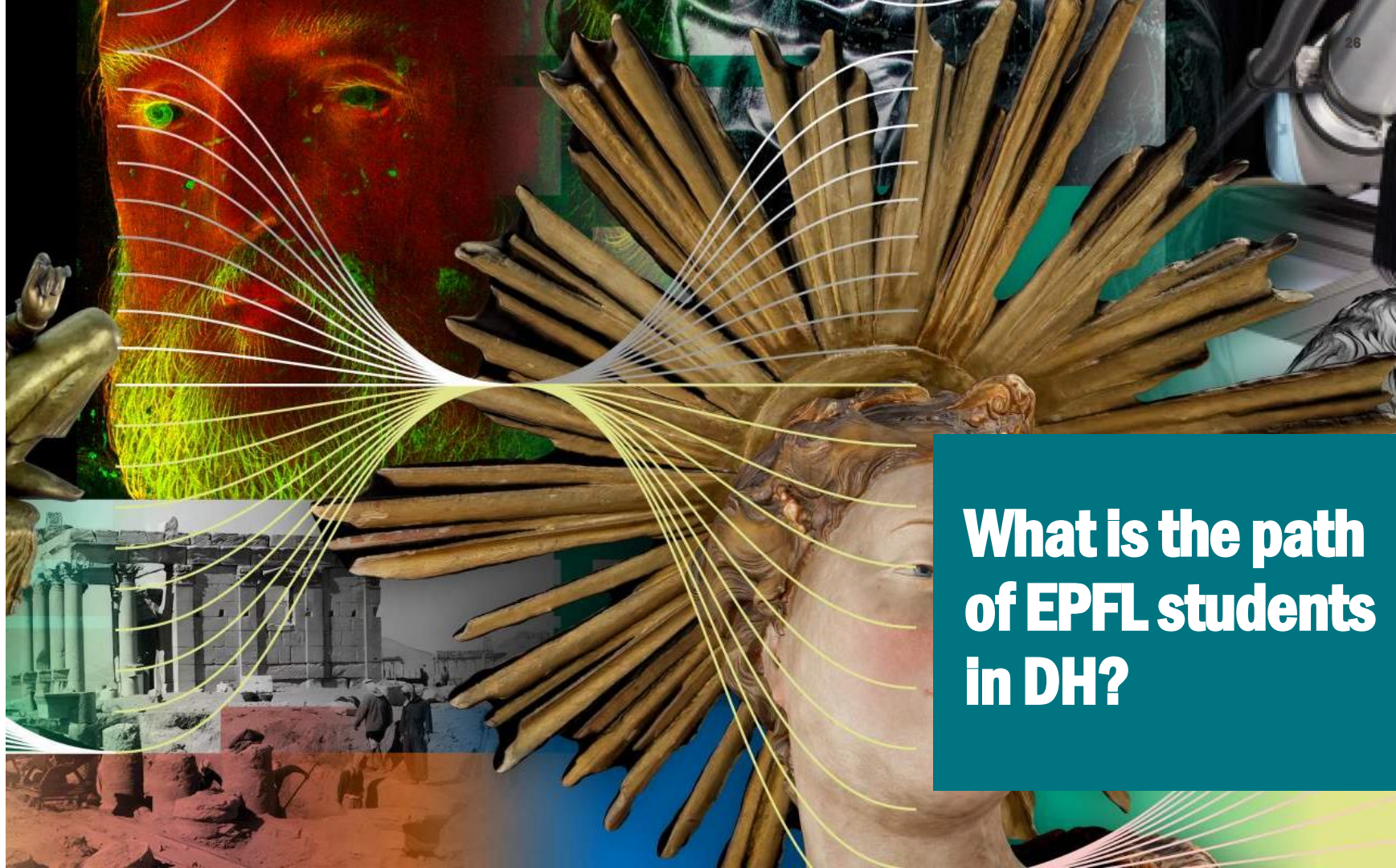
EPFL

What is the path of EPFL students in DH?

Some examples

Bachelor
- Computer Science

Internship
- Institut national d'histoire de l'art, France

Domain of work today
- Archiving and records management consulting services

Some examples

Bachelor

- Life Sciences

Internship

- BnF - Bibliothèque Nationale de France

Domain of work today

- PhD student at EPFL

Some examples

Bachelor

- Technology Management

Internship

- International Federation of Red Cross and Red Crescent Societies (IFRC), Switzerland

Domain of work today

- IFRC - Data Analyst in the humanitarian sector

Some examples

Bachelor

- Computer Science + Digital Media

Internship

- Fondazione Giorgio Cini, Italy

Domain of work today

- PhD student outside EPFL

Some examples

Bachelor
- Economics major & informatics minor

Internship
- BNS – Banque Nationale de Suisse

Domain of work today
- BNS – Banque Nationale de Suisse

DH Minor

- A new Minor in Digital Humanities, Media & Society will be offered as of Fall 2024

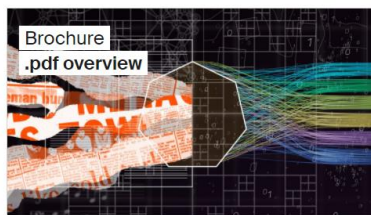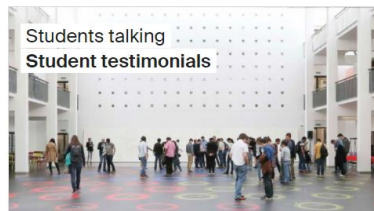- Follow us on Instagram (@epfldh) or on our website for details.

DH for Bachelor Students

How to prepare for **DH**

- SHS classes
- Semester projects in DH Labs
- Summer in the Lab
- DH events
- Dhelta (DH student association)

https://go.epfl.ch/dhpourbachelors

Website & contact

Students talking
Student testimonials

Students working
Projects & internships

Events
EPFL DH events

Brochure
.pdf overview

https://go.epfl.ch/dhmaster

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Q&A

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Thank you and keep in touch!