

# YUMENG HOU

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[LinkedIn] | [Homepage] | [Google Scholar]

## SUMMARY

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- Research and industry experience spans diverse interdisciplinary initiatives, aimed at bridging computational methods with humanities and business contexts.
- Experienced in technical product design and management, including PaaS/SaaS SDK R&D and creative tech solutions.
- Educational and research excellence in computational humanities, analytics, digital creativity, and applied data science.
- Intrapreneurial and entrepreneurial mindsets, coupled with a problem-solving and team-player attitude.

## EXPERIENCE

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### Doctoral Researcher

10/2020 – 06/2024

Laboratory for Experimental Museology (eM+), EPFL, Switzerland

- Conducting research in computational humanities, digital heritage, and computational (cultural) archives.
- Coordinating collaborations between the lab and scholars across Europe, Asia (Hong Kong), and Oceania.
- Lecturing and mentoring in the digital-humanities postgraduate course DH-404 Cultural Data Sculpting.
- Supervising postgraduate research projects in computational humanities and applied data science for cultural data, including three semester projects and six applied projects.
- Serving as PhD Student Representative for EPFL's Doctoral School of Digital Humanities (2021-2023).

### Creative Tech Lead / Advisory Board

11/2019 – 10/2020

box Interaction, Hangzhou/Remote, China [company page]

- Directing project specifications and technical solutions for enhancing visitor interactivity and engagement in exhibitions, museums, schools, and commercial events.
- Setting up procedures and standards for technical development, implementation, and quality assessment.
- (part-time, 10/2020 – present) Advising on state-of-the-art creative technology solutions and practices for multisensory spaces, interactive stages, and digital museums.

### Technical Product Manager / R&D Project Manager

10/2017 – 10/2019

Alibaba Cloud, Hangzhou, China [company page]

- Product owner for Real-time Communication (RTC) and Live-streaming cloud services (\$MM revenue).
- R&D project manager and scrum master for RTC and interactive live-streaming SDKs, coordinating with 20+ technical experts, as well as business development specialists and account managers.
- Conducting business analytics and market research for CDN and Cloud Media Services business unit.

### Digital Strategist (part-time)

12/2019 – 09/2020

NewStyle Media Group, Beijing/Hangzhou, China [company page]

- Leading solution architecture and product design for an office automation platform.
- Providing strategic advisory for digital transformation and data-driven business intelligence.

### Digital Consumer Analyst EMEA (intern)

08/2016 – 01/2017

Procter & Gamble, Geneva, Switzerland [company page]

- Coordinating with business departments to design automated business reporting procedures and prototype a solution platform.
- Conducting algorithmic research for automated customer relationship management email campaigns.

## EDUCATION

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### Docteur ès Sciences (PhD), specializing in computational humanities

10/2020 – 06/2024

Laboratory for Experimental Museology+ (eM+), EPFL, Switzerland

### MSc in Computer Science

09/2015 – 10/2017

School of Computer and Communication Sciences, EPFL, Switzerland

### BEng in Digital Media Technology

08/2010 – 06/2014

College of Computer Science and Technology, Zhejiang University, China

### Exchange Student in Human-Computer Interaction

08/2013 – 01/2014

Department of Computer and Systems Sciences, Stockholm University, Sweden

## SERVICE ACTIVITIES

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### Conference Services

- **Program Committee**, 2nd International Conference on AI-generated Content (AIGC 2024), Dec 21-22, 2024
- **Panel Chair**, Charting the European D-SEA: Digital Scholarship in East Asian Studies, Jul 8-12, 2024
- **Panel Chair**, New Paradigms for Accessing and Curating Audiovisual Collections, 28-29 September 2023
- **Coordinator**, Beyond Search: Opening Up Audiovisual Content for Humanities Studies, Sep 25-26, 2023
- **Coordinator & Fundraiser & Editor**, PhD Seminar on Human Factors in Digital Humanities, Dec 2-3 2021

### Peer Review Activities

- *High-impact academic journals*: Digital Scholarship in the Humanities, Cogent Social Sciences, International Journal of Heritage Studies, Heritage Science, Journal of Human-Computer Interaction, Multimedia Tools and Applications, International Journal of Open Humanities Data
- *High-impact conferences*: Digital Humanities 2023, MOCO'24, AIGC 2024, IEEE VIS 2024

### Voluntary Guest Lectures

- “Ontology Approach to MoCap Archives”, for *MetaTool Team* at Delft University of Technology, April 30 2023
- “Building and Disrupting the Hong Kong Martial Arts Living Archive”, in *Seminar on Digital Preservation of Cultural Heritage*, Renmin University of China, 5 Jan 2024
- “Computational Museology”, in *Digital Art History*, postgraduate class at University of Basel, 8 April 2022

### Academic Memberships

- Europeana Tech Community & Research Community, Europeana Network Association (2022 – present)
- Member of European Association for Digital Humanities (2023 – present)
- Member of AI4LAM - Artificial Intelligence for Libraries, Archives & Museums (2021 – present)
- Member of ACM - Association for Computing Machinery (2021 – present)

## GRANTS & AWARDS

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**Finalist** for Paul Fortier Prize (Best Paper Award by an emerging scholar) at Digital Humanities 2023.

**Recipient** of the Europeana Network Association Member Grant for attending EuropeanaTech 2023 (~€500).

**Recipient & PI** of the EPFL Doc.Mobility Grant 2022 (~€12,000).

**Lead Researcher** of the EPFL-UNIL Grant for Collaborative Research on Science and Society 2021-2022 (~€60,000).

**Applicant & Coordinator** of the *Swissuniversities* Support Program for Academic Activities (~€8,000).

## SKILLS

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**Programming Skills**: Python, JavaScript (D3.js, three.js, p5.js), SQL/Cypher, R, Java, processing, HTML/CSS, C++

**Knowledge Fields**: Data Visualization, Visual Analytics, Machine Learning, Semantic Web, User Experience (UX), HCI, Cloud Solution, Mixed Reality (VR/AR), Digital/Virtual Museum, Digital Archives, Cultural Heritage, Motion Capture

**Technical Tools**: Axure, Neo4j, Knime, Tableau, Unreal Engine, Unity, Media Processing (e.g., DaVinci, Photoshop)

**Soft Skills**: Product Design and Management, Agile & Scrum, Communication, Data-driven, Team Spirit, Empathy

**Language**: Mandarin (native), English (proficient), French (intermediate, B1/B2), Cantonese (elementary).

**Other skills**: Southern Chinese Martial Arts, Archery, Musical Keyboard, Jazz Drumming, Ballet, Yoga.

## SELECT PUBLICATIONS

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*\*For a comprehensive portfolio of my publications, conference presentations, and talks, please refer to [\[My Research\]](#).*

**Hou, Y.\* & Kenderdine, S.** (2024). “Ontology-based Knowledge Representation for Traditional Martial Arts”. *Digital Scholarship in the Humanities*. doi: [10.1093/llc/fqae005](https://doi.org/10.1093/llc/fqae005)

**Hou, Y.\***, Seydou, F., & Kenderdine S. (2023). “Unlocking a multimodal archive of Southern Chinese martial arts through embodied cues”. *Journal of Documentation*. doi: [10.1108/JD-01-2022-0027](https://doi.org/10.1108/JD-01-2022-0027)

**Hou, Y.\* & Yuan, L.** (2023) “Building a knowledge graph of Chinese kung fu masters from heterogeneous bilingual data”. *Journal of Open Humanities Data*, Vol 9, No. 27, pp.1-12. doi: [10.5334/johd.136](https://doi.org/10.5334/johd.136)

**Hou, Y.\***, Kenderdine S., et al. (2022). “Digitizing Intangible Cultural Heritage Embodied: state of the art”. *Journal on Computing and Cultural Heritage*, 15(3), No. 55, pp.1-20. doi: [10.1145/3494837](https://doi.org/10.1145/3494837)

Xia, J.<sup>1</sup>, **Hou, Y.<sup>1</sup>**, Chen, Y.V., Qian, Z.C., Ebert, D.S., & Chen, W.\* (2017). “Visualizing rank time series of Wikipedia top-viewed pages”. *IEEE computer graphics and applications*, 37(2), pp.42-53. doi: [10.1109/MCG.2017.21](https://doi.org/10.1109/MCG.2017.21)

Xia, J., Chen, W.\*, **Hou, Y.**, et al. (2016). “Dimscanner: A relation-based visual exploration approach towards data dimension inspection”. In *Proceedings of 2016 IEEE Conference on Visual Analytics Science and Technology (VAST)*, pp.81-90. IEEE. doi: [10.1109/VAST.2016.7883514](https://doi.org/10.1109/VAST.2016.7883514)