

YUMENG HOU

[Address] EPFL-CDH-DHI-eM+, Rue des Jordils 41, 1025 St-Sulpice, Switzerland
[Email] yumeng.hou@epfl.ch • [Homepage](#) • [Google Scholar](#)

EDUCATION

Doctor of Philosophy in Digital Humanities <i>École polytechnique fédérale de Lausanne (EPFL)</i> Supervisor: Prof. Sarah Kenderdine	Expected 2024
Master of Science in Computer Science <i>École polytechnique fédérale de Lausanne (EPFL)</i> Dissertation: "Visualizing Personal Nutrition Intake and Emotions", Supervisor: Dr. Pearl Pu	2015 – 2017
Bachelor of Engineering in Digital Media Technology <i>Zhejiang University</i> Dissertation: "Visualizing Topic Evolutions in Wikipedia", Supervisor: Prof. Wei Chen	2010 – 2014
Exchange Scholar in Computer and Systems Sciences <i>Stockholm University</i>	2013 – 2014

RESEARCH EXPERIENCE

Doctoral Researcher in Computational Archival Science <i>Laboratory for Experimental Museology (eM+), DHI, EPFL</i>	2020 – present
Visiting Scholar <i>Academy of Visual Arts, Hong Kong Baptist University</i>	July – Dec 2022
Research Assistant in Data Visualization <i>Visual analytics group of State Key Lab of CAD&CG, Zhejiang University</i>	2013 – 2015

PUBLICATIONS

Publication in Scientific Journals

- Hou, Y.*, Seydou, F., & Kenderdine S. (2023). "Accessing a multimodal archive of Southern Chinese martial arts through embodied cues". *Journal of Documentation*. <https://doi.org/10.1108/JD-01-2022-0027>
- Hou, Y.*, Kenderdine S., et al. (2022). "Digitizing Intangible Cultural Heritage Embodied: state of the art", in *Journal on Computing and Cultural Heritage*. <https://doi.org/10.1145/3494837>
- Hou, Y.* (2021). "Accessing, Representing, and Transmitting Cultural Heritage through Digital Archives: Challenges and Opportunities". *Digital Humanities Research*, 4(1), 77-91. <http://dhr.ruc.edu.cn/CN/Y2021/V1/I4/77>
- Adamou, A., Picca, D., Hou, Y. & Granados-García, P. L. (2023). "The Facets of Intangible Heritage in Southern Chinese Martial Arts: Applying a Knowledge-Driven Cultural Contact Detection Approach". *Journal on Computing and Cultural Heritage*. Just accepted. <https://doi.org/10.1145/3606702>
- Xia, J., Hou, Y., 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), 42-53. <https://doi.org/10.1109/MCG.2017.21>

Peer-reviewed Conference Proceedings

- Hou, Y. (2023). "Co-encoding embodied knowledge in Southern Chinese martial arts: a collaboration between computists, experts, and digital models". *Digital Humanities 2023: Book of Abstracts*. Long paper presentation at DH2023: Collaboration as Opportunity. July 10-14 2023, Graz, Austria. Paul Fortier Prize (best paper) candidate.
- Hou, Y.*, Kenderdine S. (2022). "Encoding the Whole-of-Environment Knowledge for Intangible Cultural Heritage". (IN)TANGIBLE HERITAGE(S): Design, culture and technology – past, present, and future, June 15-17, Canterbury, UK. AMPS Proceedings Series 29.1, pp.121-132.
- Picca, D.*, Adamou, A.*, Hou, Y., et al. (2022). "Knowledge organization of the Hong Kong Martial Arts Living Archive to capture and preserve intangible cultural heritage". *Digital Humanities 2022*. July 25-29 2022, Tokyo.

Adamou, A.*, **Hou, Y.***, Picca, D.*, et al. (2021). "Ontology-mediated cultural contact in Southern Chinese martial arts". In *Proceedings of the International Joint Workshop on Semantic Web and Ontology Design for Cultural Heritage*.

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. <https://doi.org/10.1109/VAST.2016.7883514>

Contributions to Books

Kenderdine, S.*, Hibberd, L., Shaw, J., Chang, T.-Z., & **Hou, Y.** (2023). "Archery Rites: Re-making Confucian Rites." In *Chinese Archery Studies: Theoretical and Historical Approaches to a Martial Discipline*. Springer. https://doi.org/10.1007/978-981-16-8321-3_13

OTHER TALKS & LECTURES & CONFERENCE PRESENTATIONS

"Towards digital preservation of Traditional Chinese Martial Arts". Keynote speech at *The 4th International Martial Studies Conference*, Nov 30 2022, Guangzhou, China.

"Augmenting knowledge exploration using agent-based models: A computational experiment with the HKMALA". Presentation at the *7th International Martial Arts Studies Conference*. June 29 - July 2 2022, Lausanne, Switzerland.

"Artificial Intelligence for Cultural Heritage and Computational Archives". Guest lecture in *Digital Art History: Current Trends and Experimental Applications*, University of Basel, April 8 2022.

"Computational Motion Archives", Guest lecture in *Cultural Data Sculpting*, EPFL, 31 March 2022.

"Motion as meaning: Representing embodied knowledge in multimodal cultural archives". Speech at *DHCH@ISR 2021*, June 7-9 2021, Rome, Italy.

"Visualizing Embodied Knowledge System", Guest lecture in *Cultural Data Sculpting*, EPFL, 20 May 2021.

"Articulate Similarity: A Visual Search Framework For Embodied Knowledge In A Confucian Rites Video Archive". Poster at *16th International Digital Curation Conference (IDCC21)*, April 19 2021, Online.

GRANTS & AWARDS

Shortlisted as Paul Fortier Prize best paper candidate at DH2023.	2023
EPFL Doc.Mobility grant, jointly funded by Swissuniversities and EPFL	2022
Collaborative Research on Science and Society (CROSS) program, EPFL-UNIL	2021

TEACHING

Teaching Assistant , <i>DH-404 Cultural Data Sculpting 2021/2022/2023</i> , EPFL	2021 – 2023
Supervision , Master semester project on knowledge graph-based cultural analytics, EPFL	Fall 2021
Supervision , Master semester project on deep learning for multimodal cultural archives, EPFL	Spring 2021
Supervision , Six master course projects on machine learning for movement analysis, EPFL	Fall 2020

ACADEMIC SERVICES

Student Representative, Doctoral School of Digital Humanities, EPFL	2021.01 – 2023.02
Seminar Organizer, <i>Swissuniversities</i> DH seminar, Dec 2-3, 2021, EPFL, Lausanne	2021.09 – 2021.12
President of the Students' Union, <i>College of Computer Science, Zhejiang University</i>	2012 – 2013

PROFESSIONAL EXPERIENCE

Creative Tech Lead , <i>_box Interaction, Hangzhou, China</i>	2019 – 2020
Digital Strategist (part-time) , <i>NewStyle Media Group, Hangzhou, China</i>	2019 – 2020
Product Manager RTC/Livestreaming PaaS , <i>Alibaba Cloud, Hangzhou, China</i>	2017 – 2019
Digital Consumer Analyst EMEA (internship) , <i>Procter & Gamble, Geneva, Switzerland</i>	2016 – 2017

INSTITUTIONAL MEMBERSHIPS

Europeana Network Association (ENA)	2023.03 – present
Association for Computing Machinery (ACM)	2021.10 – present
UNIL-EPFL dhCenter	2020.10 – present

EXHIBITIONS & INSTALLATIONS

ImmerscienceVR. An immersive learning environment. *Danling International Elementary School, Shanghai, China.*

Natural Origins of The Internet. Data Art Installation. *Museum of Inspiration, Hangzhou, China.*

Aqua. A Virtual Aquarium Motivating Knowledge Sharing. *Médecins Sans Frontières (MSF), Geneva, Switzerland.*

SKILLS

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

Tools: UE4, Unity, Axure, Media Processing (DaVinci, Photoshop, Audition, AI, etc), Knime, Spotfire, MS Office, etc.

Languages: Mandarin (native), English (proficient), French (intermediate), Cantonese (elementary).
