

YUMENG HOU

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EDUCATION

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

RESEARCH EXPERIENCE

Doctoral Researcher <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 <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*. Accepted. DOI: 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>
- 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>
- Adamou, A.* , Hou, Y.* , Picca, D.* , et al. (2023). “Ontology-mediated cultural contact in Southern Chinese martial arts”. *Journal on Computing and Cultural Heritage*. Under major revision.

Peer-reviewed Conference Proceedings

- Hou, Y.* , Kenderdine S. (2022). “Encoding the Whole-of-Environment Knowledge for Intangible Cultural Heritage”. In *(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.
- Hou, Y. (2022). “Augmenting knowledge exploration using agent-based models: A computational experiment with the HKMALA”. In *7th International Martial Arts Studies Conference*. June 29 - July 2 2022, Lausanne, Switzerland.
- 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”. In *DIGITAL HUMANITIES 2022*. July 25-29, 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 *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

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.

"Encoding the Whole-of-Environment Knowledge for Intangible Cultural Heritage". Paper presentation at *CANTERBURY 2022: (IN)TANGIBLE HERITAGE(S)*. June 15-17 2022, Canterbury, UK.

"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.

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

GRANTS

EPFL Doc.Mobility grant, jointly funded by Swissuniversities and EPFL	2022
Collaborative Research on Science and Society (CROSS) program, EPFL-UNIL	2021

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

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. Installation Art. *Museum of Inspiration, Hangzhou, China.*

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

PROFESSIONAL EXPERIENCE

Creative Tech Lead	2019 – 2020
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_box Interaction, Hangzhou, China

Digital Strategist (part-time)	2019 – 2020
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NewStyle Media Group, Hangzhou, China

Product Manager RTC/Livestreaming PaaS	2017 – 2019
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Alibaba Cloud, Hangzhou, China

Digital Consumer Analyst EMEA (internship)	2016 – 2017
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Procter & Gamble, Geneva, Switzerland

SKILLS

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

Tools: Prototyping (Axure, InVision), Media Processing (DaVinci, Audition, AI, PS), Spotfire, Knime, MS Office, etc.

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