

YUMENG HOU

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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 <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

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

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

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.
- 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., et al. (2023). "Co-encoding embodied knowledge in Southern Chinese martial arts: a collaboration between computists, experts, and digital models". *DIGITAL HUMANITIES 2023*. July 10-14 2023, Graz.
- 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.
- 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". *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

TALKS & LECTURES & CONFERENCE PRESENTATIONS

- "Co-encoding embodied knowledge in Southern Chinese martial arts: a collaboration between computists, experts, and digital models". Long paper presentation at *Digital Humanities 2023*, July 10-14 2023, Graz, Austria.
- "Towards digital preservation of Traditional Chinese Martial Arts". Keynote speech at *The 4th International Martial Arts Studies Conference*, Nov 30 2022, Guangzhou, China.
- "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

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.*

Aqua. A Virtual Aquarium Motivating Knowledge Sharing. *Médecins Sans Frontières (MSF), 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 (intermediate), Cantonese (basic).
