YUMENG HOU

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EDUCATION

Doctor of Philosophy in Digital Humanities   Expected 2024
École polytechnique fédérale de Lausanne (EPFL)
Supervisor: Prof. Sarah Kenderdine

Master of Science in Computer Science   2015 – 2017
École polytechnique fédérale de Lausanne (EPFL)
Dissertation: "Visualizing Personal Nutrition Intake and Emotions", *Supervisor*: Dr. Pearl Pu

Bachelor of Engineering in Digital Media Technology   2010 – 2014
Zhejiang University
Dissertation: "Visualizing Topic Evolutions in Wikipedia", *Supervisor*: Prof. Wei Chen

Exchange Scholar in Computer and Systems Sciences   2013 – 2014
Stockholm University

RESEARCH EXPERIENCE

Doctoral Researcher   2020 – present
Laboratory for Experimental Museology (eM+), DHI, EPFL

Visiting Scholar   July – Dec 2022
Academy of Visual Arts, Hong Kong Baptist University

Research Assistant   2013 – 2015
Visual analytics group of State Key Lab of CAD&CG, Zhejiang University

PROFESSIONAL EXPERIENCE

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

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

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

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

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, *Swissuniversities* DH seminar, Dec 2-3, 2021, EPFL, Lausanne	2021.09 – 2021.12
President of the Students' Union, *College of Computer Science, Zhejiang University*	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., & Kenderine 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., 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

"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, *DH-404 Cultural Data Sculpting 2021/2022/2023*, 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. *Daning 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 (basic), Cantonese (basic).