

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 Fall 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 Researcher <i>nViz Lab, AVA, Hong Kong Baptist University - Supervisor: Prof. Jeffrey Shaw</i>	2022.07 – 2023.1
Research Assistant <i>Visual Analytics and Intelligence Group, State Key Lab of CAD&CG, Zhejiang University</i>	2013 – 2015

TEACHING AND MENTORING

Teaching Assistant , DH-404 Cultural Data Sculpting 2020-21/2021-22, EPFL	2021 – 2022
Lecture , "Visualizing Embodied Knowledge System", in course <i>Cultural Data Sculpting</i> , EPFL	Spring 2021
Lecture , "Computational Archives", in course <i>Cultural Data Sculpting</i> , EPFL	Spring 2022
Invited Lecture , "AI for Cultural Heritage and Computational Archives", in course <i>Digital Art History: Current Trends and Experimental Applications</i> , University of Basel	Spring 2022
Project Mentor <i>School of Computer and Communication Sciences & Digital Humanities, EPFL</i> <ul style="list-style-type: none">Mentored two graduate students for their semester projects.Mentored six graduate students for their cross-disciplinary course projects.	2020 – present

PROFESSIONAL EXPERIENCE

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

PUBLICATIONS

Publication in Scientific Journals

Hou, Y.*, Kenderdine S., et al. (2022). Digitizing Intangible Cultural Heritage Embodied: state of the art. *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>

Peer-reviewed Conference Proceedings

Hou, Y. (2022). Augmenting knowledge exploration using agent-based models: A computational experiment with the Hong Kong Martial Arts Living Archive. *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, 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.** (2021). Archery Rites: Re-making Confucian Rites. *Chinese Archery Studies: Theoretical and Historical Approaches to a Martial Discipline*. Springer.

TALKS & LECTURES & CONFERENCE PRESENTATIONS & INVENTIONS

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

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

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

Invention: Xia, J., Chen, W., **Hou, Y.** An analysis method of multidimensional data (No. 15840696, 201707).

GRANTS

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

Research Seminar Organizer	2021.09 – 2021.12
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Organized the Swissuniversities DH seminar, Dec 2-3, 2021, EPFL, Lausanne

PhD Student Representative	2021 – present
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Doctoral School of Digital Humanities, EPFL

Students' Union President	2012 – 2013
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College of Computer Science and Technology, Zhejiang University

OTHER PROJECTS

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

Hibachi. An Elegant Connected Self-heating Lunchbox. *CHIC Program, Switzerland.*

MOOCViz. Web-based Interactive Visualization of MOOC Clickstream Data. *EPFL, Lausanne, Switzerland.*

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

TECHNICAL SKILLS

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

Tools: Axure, InVision, Unity, Rhino, MAYA, Audition, AI, PS, Knime, Spotfire, MS Office.

LANGUAGES

Mandarin: Native or Bilingual Proficiency

English: Full Professional Proficiency

French: Limited Working Proficiency

Cantonese: Elementary Proficiency