YUMENG HOU

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EDUCATION

Doctor of Philosophy in Digital Humanities   Expected Fall 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 Researcher   2022.07 – 2023.1
nViz Lab, AVA, Hong Kong Baptist University - Supervisor: Prof. Jeffrey Shaw

Research Assistant   2013 – 2015
Visual Analytics and Intelligence Group, State Key Lab of CAD&CG, Zhejiang University

TEACHING AND MENTORING

Teaching Assistant, *DH-404 Cultural Data Sculpting 2020-21/2021-22*, EPFL   2021 – 2022

Lecture, "Visualizing Embodied Knowledge System", in course *Cultural Data Sculpting*, EPFL   Spring 2021

Lecture, "Computational Archives", in course *Cultural Data Sculpting*, EPFL   Spring 2022

Invited Lecture, "AI for Cultural Heritage and Computational Archives", in course *Digital   Spring 2022
Art History: Current Trends and Experimental Applications*, University of Basel

Project Mentor   2020 – present
School of Computer and Communication Sciences & Digital Humanities, EPFL
   - *Mentored two graduate students for their semester projects.*
   - *Mentored six graduate students for their cross-disciplinary course projects.*

PROFESSIONAL EXPERIENCE

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

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

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

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

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
EPFL Doc.Mobility grant, jointly funded by Swissuniversities and EPFL	2022

UNIVERSITY SERVICE

Research Seminar Organizer *Organized the Swissuniversities DH seminar, Dec 2-3, 2021, EPFL, Lausanne*	2021.09 – 2021.12
PhD Student Representative *Doctoral School of Digital Humanities, EPFL*	2021 – present
Students' Union President *College of Computer Science and Technology, Zhejiang University*	2012 – 2013

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.*

AquA. 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