

Qi-Long Liu

qilong-kirov.liu@connect.polyu.hk

Google Scholar  ORCID  GitHub  Homepage 

EDUCATION

The Hong Kong Polytechnic University

Master of Philosophy, School of Fashion and Textiles

Laboratory for Artificial Intelligence in Design (AiDLab)

Supervised by Prof. Kit-lun Yick, Prof. Joanne Yip and Dr. Yue Sun

Sep 2021 – Feb 2024

Hong Kong, China

Shenzhen University

Bachelor of Engineering, School of Biomedical Engineering

Supervised by Dr. Yongjin Zhou

Sep 2017 – Jul 2021

Shenzhen, China

AWARDS

The Hong Kong Polytechnic University Research Studentship

2021 – 2023

The Hong Kong Polytechnic University

Star of Double Innovations (Group Award)

2021

Third Prize, Shenzhen University

National College Students Biomedical Engineering Innovation Design Competition

2019

Third Prize, The Teaching Steering Committee of Biomedical Engineering in Colleges and Universities of the Ministry of Education

National College Students Electronic Design Competition in Guangdong Province

2019

Third Prize, The Organizing Committee of the Guangdong Province Division of the National Undergraduate Electronic Design Competition

PUBLICATIONS

Under Review

L.-Y. Zhang, Z.-Q. Ma, K.-L. Yick, P.-L. Li, J. Yip, S.-P. Ng, and Q.-L. Liu, "Prediction of dynamic plantar pressure from insole intervention for diabetic patients based on patch-based multilayer perceptron with localization embedding," *IEEE Access (Under Review)*, 2024.

Journal

Q.-L. Liu, K.-L. Yick, Y. Sun, and J. Yip, "Ultra-dense motion capture: an exploratory full-automatic approach for dense tracking of breast motion in 4d," *PLOS ONE*, vol. 19, no. 2, Y. Lu, Ed., e0299040, Feb. 2024, ISSN: 1932-6203. DOI: 10.1371/journal.pone.0299040. [Online]. Available: <http://dx.doi.org/10.1371/journal.pone.0299040>.

L.-Y. Zhang, Q.-L. Liu, K.-L. Yick, J. Yip, and S.-P. Ng, "Analysis of diabetic foot deformation and plantar pressure distribution of women at different walking speeds," *International Journal of Environmental Research and Public Health*, vol. 20, no. 4, p. 3688, Feb. 2023. DOI: 10.3390/ijerph20043688. [Online]. Available: <https://doi.org/10.3390/ijerph20043688>.

Q.-Q. Shi, P.-L. Li, K.-L. Yick, J. Jiao, and Q.-L. Liu, "Influence of contoured insoles with different materials on kinematics and kinetics changes in diabetic elderly during gait," *International Journal of Environmental Research and Public Health*, vol. 19, no. 19, p. 12 502, Sep. 2022. DOI: 10.3390/ijerph191912502. [Online]. Available: <https://doi.org/10.3390/ijerph191912502>.

Conference

Q.-L. Liu, K.-L. Yick, K.-C. Chan, S.-T. Wong, and S.-P. Ng, “Sports bra pressure: effect on core body temperature and comfort sensation,” in *Ergonomics In Design*, AHFE International, 2022. doi: 10.54941/ahfe1001991. [Online]. Available: <https://doi.org/10.54941/ahfe1001991>.

Thesis

Q.-L. Liu, “Ultra-dense motion capture algorithm for breast biomechanical modelling in design of sports bras,” MPhil thesis, The Hong Kong Polytechnic University, 2024.

WORK & RESEARCH EXPERIENCE

The Hong Kong Polytechnic University <i>Research Assistant (full-time)</i> <i>Supervised by Prof. Kit-lun Yick</i> <i>3D/4D scene reconstruction/understanding, dense motion tracking, and human pose analysis</i>	Sep 2023 – Present <i>Hong Kong, China</i>
Shenzhen Base of The Hong Kong Polytechnic University <i>Student Assistant (part-time) for Prof. Kit-lun Yick</i> <i>Supervised by Prof. Kit-lun Yick</i> <i>3D/4D scanning data cleansing, labelling, and processing</i>	Dec 2020 – Jun 2021 <i>Shenzhen, Guangdong, China</i>
Shenzhen Zhishixinyun Educational Technology Ltd. <i>Python tutorial lecturer (internship)</i>	Nov 2019 – Mar 2020 <i>Shenzhen, Guangdong, China</i>

OPEN-SOURCE PROJECTS (SELECTED)

PaperThread <i>Visualize papers' relations as threads</i>	2023 Link
FEcluster <i>Distribute FE simulation tasks across multiple computers via SSH</i>	2023 Link
mesh4d <i>Toolkit for 4D (3D + T) data visualisation, operation, and dynamic estimation</i>	2023 Link
qilong-liu.vercel.app <i>Minimalist personal blog site based on Next.js and Tailwind</i>	2023 Link
pedarProbe <i>Data analysis framework for pedar plantar pressure sensor</i>	2022 Link
Beamer-LaTeX-Themes <i>Customized beamer templates for PolyU, SZU, and more</i>	2022 Link

SKILL SET

Languages

English (fluent); Mandarin (native); Cantonese (native)

Programming

Python (seasoned); JavaScript (intermediate); Bash shell scripting (intermediate); C/C++ (basic); Matlab (intermediate)

Others

LaTeX (seasoned); TikZ (intermediate); Git (seasoned); Docker (basic); Next.js (seasoned); Sphinx (seasoned)