# KWAN, Kin Chung (KC)
## *Researcher – CG & HCI*

✉ **Email**
kckwan@ieee.org
📱 **Phone**
+852-91887480
📍 **Address**
Hong Kong, China

A researcher from Hong Kong with PhD degree in Computer Science and with 6+ years of research experience in computer graphics (CG) and human-computer interaction (HCI). Published papers in top conferences and journal such as SIGGRAPH Asia, TVCG, and SIGCHI.

## Research Interests

Computer Graphics, Human-Computer Interaction, VR/AR, GPGPU, Computer Vision

## Educations

2009 – 2015   **Ph.D. in Computer Sci. and Eng.,** *The Chinese Univ. of Hong Kong, Hong Kong*

2006 – 2009   **B.Sc. in Computer Sci.,** *The Chinese Univ. of Hong Kong, Hong Kong, Hong Kong*

## Academic Experiences

2018 – present   **Senior Research Assistant,** *School of Creative Media, City Univ. of Hong Kong, Hong Kong*

2017 – 2018   **Postdoctoral Research Fellow,** *School of Creative Media, City Univ. of Hong Kong, Hong Kong*

2015 – 2017   **Research Fellow,** *Caritas Institute of Higher Education, Hong Kong*

2014 – 2015   **Research Assistant,** *Caritas Institute of Higher Education, Hong Kong*

2013 – 2014   **Research Assistant,** *The Chinese Univ. of Hong Kong, Hong Kong*

**Conference Helper:**   *PG2018*

**Reviewer:**   *PG, CGI, GMP, TVCJ, ICSPCC, HIS, IMAD, ICSC, SIGGRAPHAsia Poster, UIST, Chinagraph, EG, SIGCHI, CADCG, ISCMA*

## Publications (Selected)

### Published

- **Mobi3DSketch: 3D Sketching in Mobile AR**, (2019) K.C. Kwan and H. Fu. *In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI). ACM, 2019. p. 176.*

- **Pyramid of Arclength Descriptor for Generating Collage of Shapes,** (2016) K.C. Kwan, C. Han, L.-T. Sinn, T.-T. Wong, and C.-W. Fu. *ACM Transactions on Graphics (SIGGRAPH Asia 2016 issue), 35(6), 229.*

- **Packing Vertex Data into Hardware-Decompressible Textures**, (2017) K.C. Kwan, X. Xu, L. Wan, T.-T. Wong, and W.-M. Pang, *IEEE Transactions on Visualization and Computer Graphics 24.5: 1705-1716.*

- **Occlusion-robust bimanual gesture recognition by fusing multi-views**, (2019) G. Poon, K.C. Kwan, W.-M. Pang. *Multimedia Tools and Applications: 1-20.*

- **Real-time Multi-view Bimanual Gesture Recognition** (2018) G. Poon, K.C. Kwan, W.-M. Pang, *IEEE 3rd International Conference on Signal and Image Processing (ICSIP), pp. 19-23.*

- **A Two-Phase Space Resection Model for Accurate Topographic Reconstruction from Lunar Imagery with Pushbroom Scanners**, (2016) X. Xu, H. Zhang, G. Han, K.C. Kwan, W.-M. Pang, J. Fang, and G. Zhao. *Sensors, 16(4), 507.*

- **Towards using Tiny Multi-Sensors Unit for Child Care Reminders** (2016) G. Poon, K.C. Kwan, W.-M. Pang, K.-S. Choi, *IEEE Second International Conference on Multimedia Big Data (BigMM). pp. 372-376.*

- **Towards using Tiny Sensor with Heat Balancing Criteria for Child Care Reminders** (2016) G. Poon, <u>K.C. Kwan</u>, W.-M. Pang, K.-S. Choi, *International Journal of Semantic Computing, 10(03), 365-378.*

- **Where2Buy: A Location-Based Shopping App with Products-wise Searching** (2017) K.C. Chan, T.L. Cheung, S.H. Lai, <u>K.C. Kwan</u>, H. Yue, W.-M. Pang. *2017 IEEE International Symposium on Multimedia (ISM) (pp. 438-443). IEEE.*

- **A Mobile Adviser of Healthy Eating by Reading Ingredient Labels,** (2016) M.W. Wong, Q. Ye, Y.K. Chan, W.-M. Pang, <u>K.C. Kwan</u>, *In Proceedings of the 6th EAI International Conference on Wireless Mobile Communication and Healthcare 2016.*

- **Locally Scale-Invariant Descriptor for 2D Whole-Shape and Partial-Shape Matching,** (2015) <u>K.C. Kwan</u>, *PhD Thesis, Department of Computer Science & Engineering, The Chinese University of Hong Kong.*

---

## Patents

- **Three-Dimensional Sketching in Mobile Augmented Reality.** (2019) *PWG Application PWG/PA/709/2/2019, approved to file in US.*

---

## Unpublished

- **[Title Hidden],** H. Ye, <u>K.C. Kwan (joint 1st author)</u>, W. Su, H. Fu. *Under review in SIGCHI 2020.*

- **[Title Hidden],** H. Ye, <u>K.C. Kwan</u>, H. Fu. *Under review in SIGCHI 2020.*

- **Automatic Image Checkpoint Selection for Guider-Follower Pedestrian Navigation,** <u>K.C. Kwan</u>, and H. Fu. *In preparation for resubmission.*

- **Autocomplete Stylized Drawings from References,** Y. Chen, <u>K.C. Kwan</u>, L.Y. Wei, H. Fu. *In preparation.*

- **How to Wash Your Hand Properly? Bimanual Gesture Recognition for Hand Washing Training,** G. Poon, <u>K.C. Kwan</u>, W.-M. Pang. *In preparation for resubmission.*

## Skills

| C/C++ | Swift | CUDA | Java | Python | Matlab | HTML5 | JavaScript | Objective-C |
|---|---|---|---|---|---|---|---|---|

| OpenGL | OpenCV | GLSL | OpenCL | Qt | iOS App Development | ARKit |
|---|---|---|---|---|---|---|

## Teaching Experiences

2009 – 2019     **Teaching Assistant.,** *The Chinese Univ. of Hong Kong, Hong Kong*

## Awards

| Postgraduate Studentship (2009-2011) | Excellent Teaching Assistantship (2010) | Shaw College, Academic Merit (2009) |
|---|---|---|

## Languages

Cantonese ■ ■ ■ ■ ■
English ■ ■ ■ ■ ▢
Mandarin ■ ■ ■ ■ ▢
Japanese ■ ■ ▢ ▢ ▢

## Personal Interests

| Computing | Drawing | Playing Puzzle Game |
|---|---|---|

| Archery | Kendo | Piano |
|---|---|---|