
BIOGRAPHICAL SKETCH

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NAME Hong, Pengyu	POSITION TITLE Assistant Professor		
eRA COMMONS USER NAME PHONGPI			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Tsinghua University, Beijing, China	BS	1995	Computer Science
Tsinghua University, Beijing, China	MS	1997	Computer Science
University of Illinois at Urbana-Champaign, Illinois, USA	PhD	2001	Computer Science
University of Illinois at Urbana-Champaign, Illinois, USA	Post-Doc	2001-2002	Computer Science
Harvard University, Cambridge, MA, USA	Post-Doc	2002-2004	Bioinformatics and Computational Biology
Stanford University, Stanford, CA, USA	Post-Doc	2004-2005	Bioinformatics and Computational Biology

A. Positions and Honors.

Positions and Employment

2002 Visiting scientist. IBM T. J. Watson Research Lab. Hawthorne, NY.
2005-present Assistant Professor. Computer Science, Brandeis, MA.

Other Experience and Professional Memberships

2005-present Member, Institute of Electrical and Electronics Engineers
2006-present Member, International Society for Computational Biology
2007 Organizing co-chair. IEEE 7th International Symposium on Bioinformatics and Bioengineering.
2007 Committee. The International Conference on Machine Learning: Models, Technologies and Applications.

Honors

1999 Beckman Institute Graduate Fellowship
2000 Ray Ozzie Fellowship
2000 Fourth place at the V. Dale Cozad Business Plan Competition
2006 Travel Awards: Frontiers in Live Cell Imaging (NIH)
2006 Invited Speaker: Symposium on Image Analysis at Harvard Medical School
2006 Invited Speaker: 2006 Workshop on Multiscale Biological Imaging, Data Mining & Informatics.

B. Selected publications (in chronological order).

1. Hong P, Tian Q, and Huang TS. Incorporate support vector machines to content-based image retrieval with relevant feedback. IEEE International Conference on Image Processing, Vancouver, Canada, Sep. 10-13, 2000.
2. Hong P and Huang TS. Learning to extract multi-temporal signal patterns from a temporal signal sequence. International Conference on Pattern Recognition, Barcelona, Spain, Sep 3-7, 2000.
3. Hong P, and Huang, T. S. (2000) Extracting the recurring patterns from image. Asian Conference on Computer Vision, Jan. 5-8, 2000, Taipei, Taiwan.
4. Hong P, Turk M, Huang TS. Gesture modeling and recognition using finite state machines. IEEE International Conference on Automatic Face and Gesture Recognition, March 28-30, 2000, Grenoble, France.

5. Hong P, Wang R, Huang TS. Learning patterns from images by combining soft decisions and hard decisions. IEEE Conference on Computer Vision and Pattern Recognition, Hilton Head Island, South Carolina, June 13-15, 2000.
6. Hong P and Huang TS. Learning the isomorphic sub-graph from multiple attributed relation graphs. IWCIA and ENTCS 2001.
7. Hong P, Wen Z, Huang TS. An integrated framework for face modeling, facial motion analysis and synthesis. ACM Multimedia 2001.
8. Hong P, Wen Z, Huang TS. Real-time speech-driven avatar with constant short time delay. EUROIMAGE ICAV3D 2001.
9. Hong P, Wen Z, and Huang TS. IFACE: A 3D synthetic talking face. International Journal of Image and Graphics. 2001;1(1):19-26.
10. Hong P, Wen Z, Huang TS. Real-time speech-driven expressive synthetic talking faces using neural networks. IEEE Transaction on Neural Networks. 2002;13(4): 916-927.
11. Hong P, and Huang, T. S. Inexact spatial pattern mining. Workshop on Discrete Mathematics and Data Mining. 2002.
12. Hong P, Wen Z, Huang TS, Shum HY. Real-time speech-driven 3D face animation. International Symposium on 3D Data Processing Visualization Transmission, Padova, Italy, June 2002.
13. Hong P, and Huang TS. Multimodal temporal pattern mining. International Conference on Pattern Recognition. 2002.
14. Hong P and Huang TS. Unsupervised temporal pattern extraction and association. International Conference on Acoustics, Speech, and Signal Processing, 2002.
15. Hong P, Wen Z, Huang TS. Speech-driven face animation. in MPEG-4 Facial Animation – The Standard, implementations and applications. 2002. John Wiley & Sons, ISBN 0-470-84465-5.
16. Hong P, and Huang TS. Spatial pattern discovery by learning a probabilistic parametric model from multiple attributed relational graphs. Journal of Discrete Applied Mathematics. 2004;139:113-135.
17. Chai JY, Hong P, and Zhou MX. A Probabilistic Approach to Reference Resolution in Multimodal User Interface. International Conference on Intelligent User Interfaces, Madeira, Portugal, Jan. 2004.
18. Hong P, Liu XS, Zhou Q, Lu Q, Liu JS, Wong WH. A boosting approach for motif modeling using ChIP-chip Data. Bioinformatics, 2005;21:2636-2643.
19. Hong P and Wong WH. GeneNotes: A novel information management software for biologists. BMC Bioinformatics. 2005;6(1):20.
20. Hong P, Zhong S, Wong WH. Towards Ubiquitous Bio-information Computing: Data Protocols, Middleware, and Web service for Heterogeneous Bio-information Integration and Retrieval. International Journal Software Engineering and Knowledge Engineering, special issue on Software and Knowledge Engineering Support in Bioinformatics. 2005;15(3):475-485.
21. Kulkarni MM, Booker M, Silver SJ, Friedman A, Hong P, Perrimon N, Mathey-Prevot B. Evidence of off-target effects associated with long dsRNAs in Drosophila melanogaster cell-based assays. Nature Methods. 2006;3(10):833-838.
22. Sun X, Hong P. Computational modeling of *Caenorhabditis elegans* vulval induction. Bioinformatics. 2007 23(13):i499-i507.
23. Lin C, Mak W, Hong P, Sepp K, Perrimon N. Intelligent Interfaces for Mining Large-Scale RNAi-HCS Image Databases, IEEE International Symposium on Bioinformatics and Bioengineering. 2007

C. Current & Pending Support

Current Research Support

1 R01 EB007042-01A1

07/13/2007 – 04/30/2010

\$525,780

NIH/NIBIB

Intelligent Interfaces for Interactive Analysis of High-Content Cellular Images

Role: PI