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### **Education:**

- 2008-present. PhD Candidate, Department of Computer Science, University of Massachusetts at Boston. Supervisor: Prof. Marc Pomplun.
- 2003. MA. Computer-Aided Engineering, National Taiwan University, Taiwan.

### **Journal Publications:**

Wang, H. C. & Pomplun, M. (2012). The Attraction of Visual Attention to Texts in Real-World Scenes, *Journal of Vision*, 12(6):26, 1–17.

Hwang, A. D., Wang, H. C., and Pomplun, M. (2011). Semantic Guidance of Eye Movements in Real-world Scenes, *Vision Research*, 51, 1192-1205.

Wang, H.-C., Hwang, A. D. & Pomplun, M. (2010). Object Frequency and Predictability Effects on Eye Fixation Durations in Real-World Scene Viewing. *Journal of Eye Movement Research*, 3(3):3, 1-10.

Wang, H. C., Pomplun, M., Ko, H. W., Chen M. L., & Rayner, K. (2010). Estimating the Effect of Word Predictability on Eye Movements in Chinese Reading using Latent Semantic Analysis and Transitional Probability. *Quarterly Journal of Experimental Psychology*, 64, 7, 1374-1386.

Chen, M. L., Wang, H. C., & Ko, H. W. (2009). The Construction and Validation of Chinese Semantic Space by Using Latent Semantic Analysis. *Chinese Journal of Psychology*, 51, 4, 415-435.

Hsieh, S. H., Tseng, P. P., Wang, H. C. (2006). An Expert System for Preliminary Aseismic Capacity Estimation of Traditional School Classroom Buildings Using Case-Based Reasoning. *Journal of Chinese Civil and Hydraulic Engineering*. Vol. 18, No. 1, pp. 95-107.

Wang, H. C. , Tu, W. H., Yu, W. H., Chen, C. S., & Hsieh, S. H. (2001). A Study on E-Teaching/E-Learning Standardization and Courseware Sharing. *Bulletin Of The College Of Engineering*, National Taiwan University, Vol. 85, pp. 59-68.

### **Submitted or In Preparation:**

Wang, H. C., Schotter, E., Angele, B., Yang, J. M., Simovici, D., Pomplun, M., & Rayner, K. Using Singular Value Decomposition to Investigate Degraded Chinese Character Recognition: Evidence from Eye Movements During Reading. *Quarterly Journal of Experimental Psychology*, submitted.

Lu, S. J., Wang, H. C., Lim, J. H., & Pomplun, M. Learning Text Saliency for Automatic Text Detection in Natural Scenes. Asian Conference of Computer Vision (ACCV 2012), submitted.

Wang, H. C., Pomplun, M. A computational model of estimating semantic transparency and consistency of Chinese characters. Manuscript in preparation invited by *Journal of Research in Reading*: special issue on Chinese reading.

Tatler, B. W, & Wang, H. C. The Attraction of Visual Attention to Objects in Natural Behaviors, grant proposal in preparation to Economic & Social Research Council (ESRC), UK.

### **Conference Proceeding Publications:**

- Wang, H. C., Lu, S. J., Lim, J. H., & Pomplun, M. (2012). Visual Attention is Attracted by Text Features Even in Scenes without Text. Annual Meeting of the Cognitive Science Society (CogSci 2012), Sapporo, Japan.
- Plummer, P., Wang, H. C., Tzeng, Y. T., Pomplun, M., & Rayner K. (2012). A Connectionist Model of Concept Activation during Reading using Latent Semantic Analysis and LandScape Model. Annual Meeting of the Cognitive Science Society (CogSci 2012), Sapporo, Japan. (Oral presentation, 38%)
- Wang, H. C., Tien, Y. M., Hsu, L. C., & Pomplun, M. (2012). Estimating Semantic Transparency of Constituents of English Compounds and Two-Character Chinese Words using Latent Semantic Analysis. Annual Meeting of the Cognitive Science Society (CogSci 2012), Sapporo, Japan.
- Wang H. C. & Pomplun, M. (2011). The Attraction of Visual Attention to Texts in Real-World Scenes. The Annual Meeting of the Cognitive Science Society (CogSci2011), Boston, USA. (Oral presentation, 32%)
- Hwang, A. D., Wang, H. C., & Pomplun, M. (2009). Semantic guidance of eye movements during real-world scene inspection. Annual Meeting of the Cognitive Science Society (CogSci 2009), Amsterdam, Netherlands. (Oral presentation, 32%)

### **Conference Presentations:**

- Wang, H. C., Schotter, E., Angele, B., Yang, J. M., Simovici, D., Pomplun, M., & Rayner, K. (2012). Using Singular Value Decomposition to Investigate Degraded Chinese Character Recognition: Evidence from Eye Movements During Reading. China International Conference of Eye Movements (CICEM), Dalian, China.
- Wang, H. C., Angele, B., Schotter, E., Yang, J. M., Simovici, D., Pomplun, M., & Rayner, K. (2011). Singular Value Decomposition is a Valid Predictor of Stroke Importance in Reading, *16th European Conference on Eye Movements (ECEM)*, Marseille, France.
- Wang, H. C. & Pomplun, M. (2011). The Attraction of Visual Attention to Texts in Real-World Scenes. *Asia-Pacific Conference on Vision (APCV)*, Hong Kong.
- Wang, H. C. & Pomplun, M. (2011). How Does Text in Real-World Scenes Attract Attention? *Scene Understanding Symposium (SUnS)*, Boston, USA.
- Wang, H. C. & Pomplun, M. (2010). How Text Attracts Attention in Real-World Scenes. *European Conference on Visual Perception (ECVP)*, Lausanne, Switzerland.
- Wang, H. C., Tien, Y. M., Hsu, L. C., & Pomplun, M. (2010). The Role of Semantic Transparency in Processing of Two-character Chinese words, *Asia-Pacific Conference on Vision (APCV)*, Taipei, Taiwan.
- Wang, H. C., Hwang, A. D., Pomplun, M. (2009). Object Frequency and Predictability Effects on Eye Fixation Durations in Real-world Scene Viewing. *15th European Conference on Eye Movements (ECEM)*, Southampton, UK.
- Wang, H. C., Chen, M. L., Ko, H. W., & Kintsch, W. (2007). Estimating Word's Predictability on Lexical Processing using Latent Semantic Analysis – Verification from Eye Movement Data, *14th European Conference on Eye Movements (ECEM)*, Potsdam, Germany.
- Wang, H. C., Chen, M. L., & Ko, H. W. (2007). Modeling and Simulation of Word Identification on Orthographically and Phonologically Similar Words in Context. *46th Annual Conference of the Taiwanese Psychology Association*, Tainan, Taiwan.

- Wang, H. C. & Ko, H. W. (2007). Automatically Generated Lessons and Practices of the Knowledge of Chinese Characters and Words, *Proceeding of ED-Media 2007 (World Conference on Educational Multimedia, Hypermedia & Telecommunications)*, Vancouver BC, Canada.
- Ko, H. W., Chen, M. L., & Wang, H. C. (2005). The Role of Word during Reading Expository Text: Evidence from Eye Movement. *13th European Conference on Eye Movements*, Bern, Switzerland.
- Wang, H. C. and Hsieh, S. H. (2003). On Development of a Computer System for Preliminary Aseismic Estimation of School Classroom Building Using Case-Based Reasoning. *Proceedings of Asian Pacific Conference on Shell and Spatial Structures (IASS-APCS)*, Taipei, pp. 146~147.
- Wang, H. C. and Hsieh, S. H. (2002), Preliminary Seismic Safety Assessment of School Building Using Case-based Reasoning Technique. *Proceedings of 15th KKCNN 2002 Symposium on Civil Engineering*, Singapore, pp. 280~284.

### **Award/ Funding:**

- 2011. Research Excellence Award, Graduate Research Symposium, Department of Computer Science, University of Massachusetts at Boston.
- 2010. Student Traveling Grant, Asia-Pacific Conference on Vision (APCV), 2010.
- 2008-present. Full Assistantship, Department of Computer Science, University of Massachusetts at Boston.

### **Teaching/ Professional Activities:**

- 2008-2011. Instructor, CS 105 Computer Concepts. Department of Computer Science, University of Massachusetts at Boston.
- 2012 - Guest speaker at CICEM (China International Conference of Eye Movements), Dalian, China.
- 2012. Reviewer, Ergonomics
- 2011. Conference moderator, The Annual Meeting of the Cognitive Science Society (CogSci2011), Boston, USA.
- 2010-2011. Visiting PhD Student, Rayner Eyetracking Lab, University of California, San Diego, USA

### **Work Experiences:**

- 2011. Summer Intern, Department of Computer Vision and Image Understanding, Institute for Infocomm Research, Singapore.
- 2004 ~ 2008. Research Assistant, Graduate Institute of Learning and Instruction, National Central University, Taiwan.
- 2003 ~ 2004. Research Assistant, Software Research Center, National Central University, Taiwan.