

Kan Ouivirach

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Current Position Lead Software Architect, Pronto Tools

Act as a lead on projects, especially ones that require research and data analysis from a software development perspective. Develop, test, and maintain highly scalable data architectures to keep data accessible and ready for analysis. Build high-performance algorithms, prototypes, predictive models and proof of concepts. Research opportunities for data acquisition and new uses for existing data. Recommend ways to improve data reliability, efficiency, and quality.

Research Interests Machine learning, computer vision and image processing especially applied video surveillance.

Education **Asian Insititute of Technology, Thailand**

Ph.D., Computer Science, 2013.

Thesis: Incremental Human Behavior Modeling and Suspicious Activity Detection.

Asian Insititute of Technology, Thailand

M.Eng., Computer Science, 2008.

Thesis: Human Behavior Profileing for a Video Surveillance System.

Kasetsart University, Thailand

B.Eng., Computer Engineering, 2005.

Senior Project: Mining System using Classification based on Multiple Association Rules (CMAR).

Selected Publications

Ouivirach, K. and Dailey, M.N. (2013), Extracting the object from the shadows: Maximum likelihood object/shadow discrimination. In *Proceedings of ECTI-CON*, 2013. Article number 6559543.

Ouivirach, K., Gharti, S., and Dailey, M.N. (2013), Incremental behavior modeling and suspicious activity detection. *Pattern Recognition*, 46(3): 671–680.

Ouivirach, K., Gharti, S., Dailey, M.N. (2012), Automatic suspicious behavior detection from a small bootstrap set. In *International Conference on Computer Vision Theory and Applications (VISAPP)*, pp. 655–658.

Ouivirach, K. and Dailey, M.N. (2010), Clustering human behaviors with dynamic time warping and hidden Markov models for a video surveillance system. *Proceedings of ECTI-CON*, 2010, pp. 884–888.

Professinal Activities

Reviewer for International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON), International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS), Thailand-Japan International Academic Conference (TJIA), Frontiers of Information Technology (FIT).

Member of IEEE since 2009.