# 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 Institute 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.