Kan Ouivirach

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Career Objective

To obtain a position as a team-player in an Agile environment in a well-established and fast-growing company where I can be an efficient and productive employee. I am also seeking a new challenge to expand my knowledge and skills in marketing.

Education

Ph.D., Computer Science (Expected May 2013), Asian Institute of Technology, Thailand. Royal Thai Government Fellowship. GPA: 3.92.

M.Eng., Computer Science specialized in Software Engineering (2008), Asian Institute of Technology, Thailand. Hisamatsu Prize for Master's Degree. Second Place Award in AIT Master Thesis Competition. Royal Thai Government Fellowship. GPA: 3.56.

B.Eng., Computer Engineering (2005), Kasetsart University, Thailand. GPA: 2.90.

Professional Experience

Graduate Teaching Assistant   August 2012–December 2012
Web Application Engineering class (Ruby on Rails), Asian Institute of Technology.
Taught lab, supervised students, and graded work.

Part-time Lecturer   June 2011–April 2012
Computer and Information Technology class, School of Science and Technology, Bangkok University, Thailand.
Taught class and prepared lectures.

Graduate Teaching Assistant   August 2009–December 2009
Web Application Engineering class (Ruby on Rails), Asian Institute of Technology.
Supervised students, and graded work.

Professional Projects

Dental Care: Orthodontic Predictor   December 2012–February 2013
Developed a machine learning algorithm in C/C++ for predicting whether a dental patient will need orthodontic treatment or not based on historical records.

System for Predicting and Preventing Work-Related Musculoskeletal Disorders among Dentists   May 2011–August 2011
Developed machine learning algorithms in C/C++ for predicting and preventing work-related musculoskeletal disorders among dentist. The work has been published in Computer Methods in Biomechanics and Biomedical Engineering. (Available at http://www.tandfonline.com/doi/abs/10.1080/10255842.2012.672565)

Professional Projects (cont.)	**A Virtual Reality Simulatorfor Teaching and Evaluating Dental Procedures** May 2011–June 2011

Developed a machine learning algorithm in C/C++ for a dental training system that evaluates the performance of dental students or experts. The work has been published in Methods of Information in Medicine. (Available at `http://iist.unu.edu/sites/iist.unu.edu/files/biblio/Rhienmora-VRSim.pdf`)

Scantron January 2011–March 2011

Worked in a team to develop computer vision algorithms in C/C++ using OpenCV for an answer sheet checking and scoring for each answer sheet by using a scanned image of an answer sheet.

Rojpaiboon.co.th June 2009–June 2010

Developed a Web-based application in PHP for Rojpaiboon Equipment Co., Ltd.

P2P Web Caching for One Laptop Per Child (OLPC) January 2007–March 2007

Worked in a team to develop a small P2P Web caching program in Python for an OLPC laptop to make Websites as fast to access as possible for children, especially in rural areas. Note that this was a group project in the AIT Software Architecture Design class in 2007.

Document Approval System August 2006–December 2006

Worked in a team to develop a document approval system in PHP with Smarty (a template engine) for the IT department at Haad Thip Public Co., Ltd. Note that this was a group project in the AIT Web Application Engineering class in 2006.

Professional Activities	Prepared the handouts on time series for a professional development workshop on "Machine Learning in Computer Vision" with practical sessions using Matlab/Octave and OpenCV, 2013. This workshop was organized by TEKBAC (M) Sdn Bhd and TEKBAC Singapore Pte Ltd.

BugDay team member to organize BugDay Bangkok, 2013.

Speaker to share experience in "*Adapting Scrum to Managing a Research Group*," Barcamp Bangkhen, 2010.

Attended Machine Learning Summer School (MLSS), 2008.
Web site: `http://kioloa08.mlss.cc/`

Writer at WordPress-66.com and ThaiML.org.

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).

Student Member of IEEE since 2009.

Research Interests	Data analysis and visualization, machine learning, data mining, computer vision, and image processing.
Technology Interests	WordPress, Cloud-based technology, MVC Web frameworks, Apache, OpenCV, ROS, Ajax, Android, iOS.
Technical Expertise	**Programing Languages**: C/C++, Matlab/Octave/R, PHP, Perl, Python, Ruby on Rails, Java, SQL, JavaScript. **Version Control Systems:** Git, Subversion. **Database Management Systems**: MySQL, PostgreSQL. **Operating Systems**: Ubuntu, Windows XP/Vista/7.
Statement of Accomplish- ments	Udacity: Web Application Engineering: How to Build a Blog (in Python), 2012. Coursera: Learn to Program (in Python): The Fundamentals, 2012. Machine Learning course (`ml-class.org`), 2011. Artificial Intelligence course (`ai-class.com`), 2011.
Selected Publications	Ouivirach, K. and Dailey, M. N., Extracting the Object from the Shadows: Maximum Likelihood Object/Shadow Discrimination. In Proceedings of *International Conference on Electrical Engineering/Electronics Computer Telecommunications and Information Technology (ECTI-CON)*, 2013. In press. Ouivirach, K., Gharti, S., and Dailey, M. N., Incremental Behavior Modeling and Suspicious Activity Detection. *Pattern Recognition (PR)*, 46(3): 671–680, 2013. Ouivirach, K., Gharti, S., and Dailey, M. N., Automatic Suspicious Behavior Detection from a Small Bootstrap Set. In *International Conference on Computer Vision Theory and Applications (VISAPP)*, volume 1, pp. 655–658, 2012. Ouivirach, K. and Dailey, M. N., Clustering Human Behaviors with Dynamic Time Warping and Hidden Markov Models for a Video Surveillance System. In Proceedings of *International Conference on Electrical Engineering/Electronics Computer Telecommunications and Information Technology (ECTI-CON)*, pp. 884–888, 2010.
References	Matthew N. Dailey, Ph.D. Associate Professor Computer Science and Information Management School of Engineering and Technology Asian Institute of Technology P.O. Box 4, Klong Luang Pathumthani 12120 Thailand +66 2 524 5712 Email: `mdailey@ait.ac.th`