

Antony Lam

Address: 255 Shimo-Okubo, Sakura-ku, Saitama 338-8570, Japan

Email: antonylam AT cv.ics.saitama-u.ac.jp

Website: <http://yankee.cv.ics.saitama-u.ac.jp/~kunolab/antonylam>

EDUCATION

Ph.D. in Computer Science Sept. 2010
Dissertation: "Learning Ranking Functions for Video Search on the Web" (Conferred Dec. 2010)
Specialized in Computer Vision and Machine Learning
University of California, Riverside

B.S. in Computer Science June 2004
Minored in Mathematics, Graduated Magna Cum Laude
California State Polytechnic University, Pomona

EXPERIENCE

Assistant Professor July 2014 - Present
Graduate School of Science and Engineering, Saitama University, Japan

Project Researcher Oct. 2010 - June 2014
Supervisor: Dr. Imari Sato
National Institute of Informatics, Tokyo, Japan

- Hyperspectral imaging of fluorescence and reflectance, denoising hyperspectral images using spectral domain statistics, photometric stereo using active colored lighting, reflectance analysis, imaging with active lighting.

Research Assistant June 2006 - Aug. 2010
Supervisors: Dr. Christian R. Shelton and Dr. Amit K. Roy-Chowdhury
University of California, Riverside

- Relevance feedback **video retrieval** system for activities using **transfer learning**.
- Developed system for **counting the frequency** of flies in large commercial dairy operations by automated visual counting of fly waste products.
- Built a **face recognition** system that identifies whether two images of faces are of the same person despite large pose variations.

NSF EAPSI/JSPS Summer Fellow June 2009 - Aug. 2009
Host Researchers: Dr. Yoichi Sato and Dr. Kris M. Kitani
The University of Tokyo

- Investigated Stochastic Context Free Grammar algorithms for retrieval of **video activities**.

Research Assistant June 2003 - Sept. 2003
Supervisor: Dr. Amar Raheja
California State Polytechnic University, Pomona

- Tested the application of different Neural Network architectures to the problem of **fabric drape prediction**. Predicted characteristics of how of fabric would drape over a rigid surface given its mechanical properties.

PUBLICATIONS

Ying Fu, **Antony Lam**, Yasuyuki Matsushita, Imari Sato, and Yoichi Sato. "Interreflection Removal Using Fluorescence." In European Conference on Computer Vision (ECCV), Springer, 2014. (To Appear)

Ying Fu, **Antony Lam**, Yasuyuki Kobashi, Imari Sato, Takahiro Okabe, and Yoichi Sato. "Reflectance and Fluorescent Spectra Recovery Using Variant Illuminations." In IEEE Computer Vision and Pattern Recognition (CVPR), IEEE, 2014. (Oral)

Ying Fu, **Antony Lam**, Imari Sato, Takahiro Okabe, and Yoichi Sato. "Separating Reflective and Fluorescent Components Using High Frequency Illumination in the Spectral Domain." In IEEE International Conference on Computer Vision (ICCV), IEEE, 2013. (Oral)

Antony Lam, Art Subpa-Asa, Imari Sato, Takahiro Okabe, and Yoichi Sato. "Spectral Imaging Using Basis Lights." In 24th British Machine Vision Conference (BMVC), BMVA, 2013.

Antony Lam and Imari Sato. "Spectral Modeling and Relighting of Reflective-Fluorescent Scenes." In IEEE Computer Vision and Pattern Recognition (CVPR), IEEE, 2013.

Antony Lam, Imari Sato, and Yoichi Sato. "Denoising Hyperspectral Images Using Spectral Domain Statistics." In 21st International Conference on Pattern Recognition (ICPR), IAPR, 2012. (Oral)

Alec C. Gerry, Gerald E. Higginbotham, Lea N. Pereira, **Antony Lam**, and Christian R. Shelton. "Evaluation of Surveillance Methods for Monitoring House Fly Abundance and Activity on Large Commercial Dairy Operations." Journal of Economic Entomology, Entomological Society of America, 2011.

Antony Lam, Amit K. Roy-Chowdhury, and Christian R. Shelton. "Interactive Event Search Through Transfer Learning." In 10th Asian Conference on Computer Vision (ACCV), Springer, 2010.

Antony Lam and Christian R. Shelton. "Face Recognition and Alignment Using Support Vector Machines." In Automatic Face and Gesture Recognition (FG), IEEE, 2008.

Antony Lam, Amar Raheja, and Muthu Govindaraj. "Neural Network Models for Fabric Drapery Prediction." In International Joint Conference on Neural Networks (IJCNN), IEEE, 2004.

PROFESSIONAL ACTIVITIES

Reviewer for Transactions on Circuits and Systems for Video Technology (TCSVT), Machine Vision and Applications (MVAP), Asian Conference on Computer Vision (ACCV), International Conference on Pattern Recognition (ICPR), and Computer Vision and Pattern Recognition (CVPR).

Member of Institute of Electrical and Electronics Engineers (IEEE), British Machine Vision Association (BMVA), and Golden Key International Honour Society.

TEACHING

Seminar on Hyperspectral Imaging Jan. 2014
National Institute of Informatics

- Invited talk on hyperspectral imaging and applications.

Teaching Assistant Sept. 2004 - June 2006
University of California, Riverside

- Introduction to Computing, Introduction to Engineering, Introduction to Data Structures and Algorithms, Artificial Intelligence.
- Duties included lecturing and grading of assignments, projects, and exams.

Tutor Sept. 2003 - June 2004
California State Polytechnic University, Pomona

- Tutored for Computer Science courses in programming and data structures.

Grader Jan. 2001 - Mar. 2002
California State Polytechnic University, Pomona

- Introduction to Computer Science, Introduction to Programming and Problem Solving, Introduction to C++, Discrete Mathematics.

AWARDS & GRANTS

Chancellor's & College Dissertation Fellowship Jan. 2010 - Mar. 2010
University of California, Riverside

Summer Fellowship June 2009 - Aug. 2009
U.S. NSF and JSPS

Dean's Fellowship Sept. 2005 - June 2006
University of California, Riverside

GAANN Fellowship Sept. 2004 - Sept. 2005
U.S. Department of Education

Computer Science Scholarship May 2004
The Boeing Company

SKILLS & LANGUAGES

- Matlab, C++, experience with Java
- English (native), Japanese (intermediate), Mandarin (conversational speaking), Cantonese (fluent speaking)

REFERENCES

Dr. Imari Sato, National Institute of Informatics, Tokyo, Japan

imarik at nii.ac.jp

Dr. Yoichi Sato, The University of Tokyo, Japan

ysato at iis.u-tokyo.ac.jp

Dr. Christian R. Shelton, Department of Computer Science & Engineering, UC Riverside

cshelton at cs.ucr.edu

Dr. Amit K. Roy-Chowdhury, Department of Electrical Engineering, UC Riverside

amitrc at ee.ucr.edu