YA-FANG SHIH

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EDUCATION

M.S. Computer Science - National Taiwan University (Overall GPA: 4.16/4.3) 02/2016 - 06/2017

Courses: Digital Image Processing / GPU Programming / Digital Visual Effects / Computer Graphics / Human-Computer Interaction

B.S. Computer Science - National Taiwan University (Last 60 GPA: 4.01/4.3) 09/2011 - 06/2015

EXPERIENCE

Research Assistant - Academia Sinica, Taiwan 2015 - 2017

Teaching Assistant - Dept. Computer Science, National Taiwan University 2017- 2017

CSIE 7694 Digital Visual Effects (Spring 2017)

PUBLICATION

Deep Co-occurrence Feature Learning for Visual Object Recognition

Ya-Fang Shih*, Yang-Ming Yeh* (* indicates equal contribution), Yen-Yu Lin, Ming-Fang Weng, Yi-Chang Lu, Yung-Yu Chuang

IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2017

AWARD

Excellent Master Thesis Award 2017

A thesis award from The Chinese Image Processing and Pattern Recognition Society

Viscovery Scholarship 2017

A scholarship won by popular vote upon presentation during the Viscovery Research Seminar on Computer Vision and Deep Learning

Outstanding Students Conference Travel Grant 2017

A travel grant from the Foundation for the Advancement of Outstanding Scholarship

PROJECT

Medical Image Segmentation with Adversarial Synthesized data (TensorFlow, python) 2017

- Applied generative adversarial networks to translate between unpaired CT and MRI medical images.
- Improved brain image segmentation results by fusing the synthesized data from two domains.

Stereo Panorama (C++) Website: yafangshih.github.io/stereo-pano 2016

- Produced stereo panorama image pairs (for left and right eyes) from a handheld GoPro video.
- Implemented omnistereo method and an optical flow-based image blending method.

Color Harmony Evaluation System for Outfit (C++) 2016

- Implemented color harmonization algorithm to develop an image evaluation system.
- The resulting system scored how harmonic the colors of people's outfit looked.

Improved Classification for Distorted Images (MATLAB, MatConvNet) 2016

- This work focused on improving the CNN classification accuracy of scene photos taken by users which had heavy lightning and contrast distortion.

Image Feature Matching Android Application (C++, Java, Android NDK) 2015

- Developed an application that took photos and matched feature points instantly on mobile devices using native language and integrated it into the Java environment on Android platform.

DJ Board (C, Arduino) Website: silviachyou.github.io/DJBoard 2015

- Developed an interactive skateboard on Arduino platform.
- The resulting system received inputs of user's body motion from multiple sensors to trigger different types of music effects.

SKILL

Languages: C/C++, python, MATLAB, CUDA

Tools: TensorFlow, MatConvNet, OpenCV, OpenMP

REFERENCE

Yung-Yu Chuang, Professor, National Taiwan University cyy@csie.ntu.edu.tw

Yen-Yu Lin, Associate Research Fellow, Academia Sinica yylin@citi.sinica.edu.tw