

JATUPORN TOY LEKSUT

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EDUCATION

University of Southern California, Los Angeles CA

+Research: Face and Expression Recognition

+Interest: Computer Vision \cap Computer Graphics, Deep Learning

PhD, Computer Science

May 2018 (expected)

The George Washington University, Washington DC

GPA: 3.92

B.S., *summa cum laude*, Computer Science

May 2012

TECHNICAL SKILLS (and frequency of uses)

Programming Languages

■■■□ Java, C++, Python, MATLAB, bash

■■■□ JavaScript, SQL

Libraries/Systems/Software

■■■□ Caffe, Linux, dlib, OpenCV, OpenGL, Git, HPC

■■■□ Processing, jQuery

EXPERIENCE

Research Assistant for IARPA's JANUS Face Recognition Project at USC [2014-2016]

- + Designed and implemented a C++ module to **estimate head pose** and **3D-to-2D face alignment** using detected 2D facial landmarks
- + Designed and implemented a C++ module to **render multi-pose face images** by texture mapping a single face image to a generic 3D face model
- + Designed and implemented a C++ module to **extract facial expression descriptor** by fitting a linear combination of 3D expression blendshapes to a face image with detected facial landmarks
- + Trained and finetuned **convolutional neural networks** e.g. GoogLeNet on millions of augmented face images
- + Implemented **face recognition** training and testing system prototype

C++
OpenCV
OpenGL

Caffe
Python
MATLAB

Teaching Assistant for CS Graduate course: Artificial Intelligence [2013-2014]

PUBLICATIONS

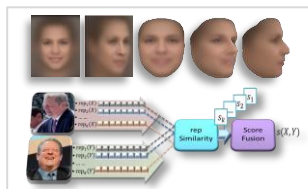


Do We Really Need to Collect Millions of Faces for Effective Face Recognition?

- + Provided multi-pose rendering of faces
- + Designed and implemented expression reduction module

C++, OpenCV, OpenGL

ECCV 2016, Spotlight Poster - <http://www.eccv2016.org/files/posters/S-4B-09.pdf>
Iacopo Masi, Anh Tuan Tran, Tal Hassner, Jatuporn Toy Leksut, Gérard G. Medioni



Face Recognition Using Deep Multi-Pose Representations

- + Designed and implemented image-based multi-pose rendering of faces, deployed on Linux and HPC

C++, OpenCV, OpenGL

WACV 2016, arXiv - <https://arxiv.org/abs/1603.07388>
Wael AbdAlmageed, Yue Wu, Stephen Rawls, Shai Harel, Tal Hassner, Iacopo Masi, Jongmoo Choi, Jatuporn Toy Leksut, Jungyeon Kim, Prem Natarajan, Ram Nevatia, Gérard Medioni

Expression Invariant 3D Face Modeling from an RGB-D Video

- + Provided expression reduction module using 3D expression blendshape technique
- ICPR 2016: Donghyun Kim, Jongmoo Choi, Jatuporn Toy Leksut, Gérard Medioni

C++, OpenGL

Accurate 3D Face Modeling and Recognition from RGB-D Stream in the Presence of Large Pose Changes

- + Provided 3D head pose estimation module

ICIP 2016: Donghyun Kim, Jongmoo Choi, Jatuporn Toy Leksut, Gérard Medioni

C++, OpenCV

SIDE PROJECTS



Longdo Sija [2012]
bit.ly/LongdoSija

Google Chrome extension for instant Thai-English dictionary look up



Hippo Hat Girl [2012]
bit.ly/HippoHatGirlGame

Computer Game, Windows only



Ladybug [2012]
bit.ly/LadyBugGame

Computer Game, Windows, won 3rd prize from Games4Girls competition