# YANG LI

(+86) 1565-8015-117  $\diamond$  liyang89@zju.edu.cn

Room 101, Zetong Building, Yuquan Campus Zhejiang University, Hangzhou, China http://ihpdep.github.io

## **EDUCATION**

## Zhejiang University (ZJU)

September 2013 - Present

 $\operatorname{Ph.D.}$  student in Computer Science & Technology. Supervised by Prof. Jianke Zhu.

Research focus: Computer Vision & Machine Learning.

## East China Normal University (ECNU)

September 2007 - July 2011

B.E. in Software Engineering. Supervised by Prof. Changbo Wang.

Research focus: Computer Graphics.

### **PUBLICATIONS**

Yang Li, Zhan Xu and Jianke Zhu. CFNN: Correlation Filter Neural Network for Visual Object Tracking. International Joint Conference on Artificial Intelligence (IJCAI), 2017.

M. Kristan, R. Pflugfelder, et al. The visual object tracking vot2016 challenge results. In ECCV2016 Workshops, Workshop on Visual Object Tracking Challenge 2016. (Co-author)

Yang Li, Jianke Zhu, Steven C.H. Hoi. Reliable Patch Trackers: Robust Visual Tracking by Exploiting Reliable Patches. Computer Vision and Pattern Recognition (CVPR), 2015.

Wenjie Song, Jianke Zhu, Yang Li, Chun Chen. Image Alignment by Online Robust PCA via Stochastic Gradient Descent. IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), 2015.

Yang Li, Jianke Zhu. A Scale Adaptive Kernel Correlation Filter Tracker with Feature Integration. European Conference on Computer Vision Workshops, VOT2014 (ECCVW), 2014. (Oral presentation at Zurich)

M. Kristan, R. Pflugfelder, et al. The visual object tracking vot2014 challenge results. In ECCV2014 Workshops, Workshop on Visual Object Tracking Challenge 2014. (Co-author)

M. Kristan, R. Pflugfelder, et al. The visual object tracking vot2013 challenge results. In ICCV2013 Workshops, Workshop on Visual Object Tracking Challenge 2013. (Co-author)

Changbo Wang, Chenhui Li, Jinqiu Dai, Yang Li: Adaptive lattice-based light rendering of participating media. Journal of Computer Animation and Virtual World 22(6): 487-498 (2011).

Chenhui Li, Changbo Wang, Yang Li, Min Zhao, et al. Real-time realistic rendering of under seawater scene. Journal of Image and Graphics. 2011.16(8):1497-1502.

#### AWARDS

1st/70 Place with Staple+ in realtime track on Visual Object Tracking Challenge 2016

Outstanding Postgraduates of Zhejiang University, 2016

Google Excellence Scholarship 2015 (5 students awarded in ZJU for outstanding academic performances)

Tang Lixin Scholarship 2015 (2 persons awarded in C.S. Department of ZJU for outstanding performances)

2nd/38 Place with SAMF on Visual Object Tracking Challenge 2014

7th/27 Place with SCTT on Visual Object Tracking Challenge 2013

Third Prize, National Undergraduate Software Innovation Competition 2009

#### **SERVICES**

Reviewer (16,17) of Neurocomputing (NEUCOM)

Reviewer (15,17) of IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)

Reviewer (15) of International Joint Conferences on Artificial Intelligence (IJCAI)

Reviewer (15) of ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)

Reviewer (14) of International Conference on Behavioral, Economic and Socio-Cultural Computing (BESC)

#### PROFESSIONAL EXPERIENCE

## Internet Vision Group, ZJU

March 2013 - Present Hangzhou, China

Research Assistant

- Staple+ tracker: I helped to design and implement an algorithm to employ motion information in tracking visual objects in the sequence while still maintains good efficiency in realtime.
- Reliable Patch tracker: I designed and implemented an algorithm to track with those reliable patches in the image space and to use those patches to enhance the robustness of the final tracker's results in the sequences.
- SAMF tracker: I designed and implemented an extension version of the kernelized correlation filter based tracker with the ability of scale adaptive and multiple feature integration.
- ORPCA tracker: I helped to transform the ORPCA learning algorithm into a tracking version algorithm and took the responsible of validation of the tracker.
- SCT tracker: I was a core developer for the convolutional treelets based tracker which has a high accuracy performance in VOT2013.

iDST, Alibaba

January 2017 - Present

Hangzhou, China

• Tracking and Detection project: I designed and implemented the tracking algorithm in project running on iOS.

UWA

Intern

July 2016 - September 2016

Intern

Shanghai, China

- GPU profiling tools (release on Android with Unity3D): I designed and implemented the GPU profiling tools in mobile game runtime. The tools can be plugged into the user's game project and display two modes, overdraw and mipmap, in realtime to demonstrate the GPU status and statistic analysis for the users to their GPU code implementation.
- Research on Unity3D rendering: I researched on soft shadow and physical based rendering implementation in Unity3D. By comparing different technical strategies, I wrote a report of how to implement those techniques in Unity3D efficiently.

## College of Computer Science, ZJU

September 2013 - January 2016

Teaching Assistant

Hangzhou, China

- Visual Recognition and Retrieval: I helped Prof. Jianke Zhu to handle the homework scoring and Q&A part of the course.
- Information Retrieval and Search Engine: I helped Prof. Michael R. Lyu and Prof. Jianke Zhu to manage the materials of the course and was in charge of the experimental part of the lesson.

July 2010 - July 2012 Shanghai, China

- Generator Rex Project (released on Xbox360/PS3/Wii): I designed and implemented the object movement system in the game play and was a core developer for the message-based event control system in the game.
- Optimization of Da Vinci game engine: I was one of the core team members who are responsible for memory-related bugs and optimization of our all-platform game engine including game editor and runtime engine.
- Pipeline tool: I designed and implemented an auto-pipeline tool embedded in Maya to help artists to simplify the operations for pipeline work, like check in/out, file path management, auto-save management, revision control management, auto-rendering and so on.

## Sea Rendering Group, ECNU

Research Assistant

January 2009 - July 2011 Shanghai, China

- Sea Rendering Project: I designed and implemented a graph construction module of sea surface and a whole module of underwater god ray realistic rendering.
- Voxel Render Project: I designed and implemented a converting tool which transform the graphic material from polygen data to voxel data for volume based participating media rendering.

### **SKILLS**

Programming Language

Matlab, C++, C#, Python (and various) with practical experiences. Chinese Mandarin (native), English (fluent).