DEYING KONG

Irvine, CA ⋄ deyingk@uci.edu

EDUCATION

University of California, Irvine   Present
PhD Candidate, Computer Science

Huazhong University of Science and Technology   June 2016
Master's Degree, Information and Communication Engineering

Huazhong University of Science and Technology   June 2013
Bachelor's Degree, Electronics and Information Engineering
Selected into the *Undergraduate Program for Advanced Mathematical Information Education*

SKILLS

Python, C++, C, Matlab, PyTorch, TensorFlow

RESEACH FOCUS

Machine Learning and Computer Vision, especially on hand/human pose estimation.

PUBLICATIONS

First-authored papers.

[1] ECCV 2022. *Identity-aware Hand Mesh Estimation and Personalization from RGB Images.*

[2] BMVC 2020 **Oral** . *SIA-GCN: A Spatial Information Aware Graph Neural Network with 2D Convolutions for Hand Pose Estimation.*

[3] WACV 2020. *Rotation-invariant Mixed Graphical Model Network for 2D Hand Pose Estimation.*

[4] BMVC 2019. *Adaptive Graphical Model Network for 2D Hand Pose Estimation.*

[5] IEEE Transactions on Wireless Communications, 2015. *Channel estimation under staggered frame structure for massive MIMO system.*

Co-authered papers.

[6] CVPR 2022. *Topology-Preserving Shape Reconstruction and Registration via Neural Diffeomorphic Flow.*

[7] ECCV 2022. *PPT: token-Pruned Pose Transformer for monocular and multi-view human pose estimation.*

[8] WACV 2023. *Representation Recovering for Self-Supervised Pre-training on Medical Images.*

[9] WACV 2020. *Nonparametric structure regularization machine for 2d hand pose estimation.*

[10] WACV 2022. *AFTer-UNet: Axial Fusion Transformer UNet for Medical Image Segmentation.*

[11] ICLR 2022 Workshop. *Sparse Logits Suffice to Fail Knowledge Distillation.*

PATENTS

[1] CN105049101 B, A method of scale is carried out to the antenna channels of multiple antenna communication

[2] CN104113496 A, Method of carrying out channel estimation by using sequential pilot sequence

INTERNSHIP

Google   *Software Engineer Intern*, June - Sept. 2022
· Develop algorithms for Visual-SLAM in the AR Core team, which is a key technology for AR/VR applications.

Meta (Facebook) Reality Labs   *Research Intern*, June - Sept. 2020
· Worked on the 3D hand pose/mesh estimation task which plays an important role in many applications in VR/AR.
· Focused on the task of predicting 3D hand keypoints as well as 3D hand mesh from monocular RGB images.
· Developed deep learning algorithms and conducted experiments which showed their efficacy, by using PyTorch.

Skyworks Solutions, Inc.   *Legal Research Intern*, June - Sept. 2017

· Assisted Chief Patent Counsel with state of the art reviews and surveys.
· Conducted literature research on SAW filters as used for RF signal processing in wireless communication devices.
· Two technical reports were submitted and circulated internally by the end of the internship.

PROFESSIONAL SERVICES

Reviewer: CVPR, ECCV, BMVC, WACV, Neural Processing Letters, Pattern Recognition

TEACHING EXPERIENCES

Intro to Machine Vision, Machine Learning and Data Mining, Computational Photography and Computer Vision, Discrete-Time Signals and Systems, Applications of Probability in Computer Science.

HONORS & AWARDS

Outstanding College Graduate   by Huazhong Univ. of Sci. & Tech.

Merit Graduate Student   by Huazhong Univ. of Sci. & Tech.

National Scholarship for Graduate Students ($\sim$ top 2.5%)   by Ministry of Education of China