HAO WANG

haowang7308@gmail.com ⋄ https://hwang7308.github.io
National Laboratory of Pattern Recognition
Institute of Automation, Chinese Academy of Sciences

EDUCATION

The University of Edinburgh 2018 - 2019
MSc with Distinction in Informatics *Edinburgh, UK*
Supervisor: Prof. Robert B. Fisher

Beijing University of Posts and Telecommunications 2014 - 2018
B.Eng. in Telecommunication Engineering *Beijing, China*
Supervisor: Prof. Aidong Men

University of Skövde Sept. 2016 - Jan. 2017
Exchange Student in informatics *Skövde, Sweden*
Concentration: Operating Systems, System Administration

RESEARCH INTERESTS

3D Vision & Graphics, AR/VR

PUBLICATION

Conference

Beyond 3DMM Space: Towards Fine-grained 3D Face Reconstruction ECCV 2020
Xiangyu Zhu, Fan Yang, Di Huang, Chang Yu, ***Hao Wang****, Jianzhu Guo, Zhen Lei, Stan Z. Li*

ACADEMIC PROJECTS

Digital Face Manipulation Detection Mar. 2020 - Present

· Proposed to detect forged face with facial detail
· Introduced a supervised Attention and a multi-modality solution

Furniture Detection and Classification Feb. 2020 - Aug. 2020

· Built a furniture recognition model based on Detectron2

Fine-grained 3D Face Reconstruction Oct. 2019 - Mar. 2020
ECCV 2020

· Proposed a novel solution to construct large-scale fine-grained 3D data from RGB-D images
· Constructed a new dataset, Fine-Grained 3D face (FG3D), with 200k samples for training
· Proposed a Fine-Grained reconstruction Network (FGNet) concentrating on shape modification in UV space

Gender Identification from 3D Facial Surface Model Feb. 2019 - Aug. 2019
Dissertation for Master's degree

· Proposed a novel method on 3D facial gender identification with machine learning & conformal mapping
· Evaluated the proposed method and obtained competitive performance (accuracy over 88%)

Action Recognition Model with First-Person Videos Jan. 2019 - Mar. 2019

· Evaluated third-person action recognition methods with first-person datasets
· Compared the differences between the third and first-person methods
· Proposed and studied a new model combining MobileNet and Two-stream Pyramid

Image Super-Resolution with Convolutional Neural Network Dec. 2017 - June 2018
Dissertation for Bachelor's degree

· Realized the subpixel-based image super-resolution method with pixel shuffle
· Tested the model on both image and video datasets

RESEARCH EXPERIENCE

National Laboratory of Pattern Recognition, CASIA Oct. 2019 - Present
Research Intern *Beijing, China*

- Advisors: Prof. Xiangyu Zhu, Prof. Zhen Lei
- Projects: Fine-grained 3D face reconstruction; Face forgery detection

Next Generation Internet Research Center, BUPT May 2017 - Oct. 2017
Undergraduate Research Assistant *Beijing, China*

- Advisor: Prof. Yang Liu
- Projects: Optimization on DASH-based video service in high-speed railway networks with stochastic methods; Network flow variation detection with mobile crowd sensing

SKILLS

Programming Languages: Python, MATLAB, C/C++, Java, VHDL, Verilog, Assembly Language

Tools: PyTorch, Tensorflow, OpenCV, Dlib

Others: Linux, Git, SQL, LaTeX, FPGA, Arduino, Raspberry Pi

REFERENCES

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Assistant Professor
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