Junjie Wang

Updated January 24, 2025

Email: dreamboy.gns@sjtu.edu.cn
Phone: (+86) 152-0192-2895
GitHub: https://github.com/FishWoWater
Citizenship: Shanghai, China

Research interests

3D Human Pose Estimation; Human Mesh Recovery; 3D Virtual Try-On; Other CV & CG Cross Intersect; Object Detection;

Education

Shanghai Jiao Tong University Shanghai, China
Master in Electronic Engineering 09. 2021 – 03. 2024

Shanghai Jiao Tong University Shanghai, China
Bachelor in Computer Science 09. 2017 – 06. 2021

Honors

ACMMM2023 Reviewer, **TIP2023** Reviewer 2023
National Gold Medal: The 8th China International College Students' 'Internet+' Innovation and Entrepreneurship Competition 2022

Scholarships

The First Prize: Suzhou Cultivated Talent Scholarship 2023

Publications

Towards Alleviating the Modeling Ambiguity of Unsupervised Monocular 3D Human Pose Estimation *ICCV 2021*
Zhenbo Yu; Bingbing Ni†; Jingwei Xu; **Junjie Wang**; Chenglong Zhao; Wenjun Zhang.

Skeleton2Mesh: Kinematics Prior Injected Unsupervised Human Mesh Recovery *ICCV 2021*
Zhenbo Yu*; **Junjie Wang***; Jingwei Xu; BingBing Ni†; Chenglong Zhao; Minsi Wang; Wenjun Zhang.

OCR-Pose: Occlusion-aware Contrastive Representation for Unsupervised 3D Human Pose Estimation *ACMMM 2022*
Junjie Wang, Zhenbo Yu, Zhengyan Tong, Hang Wang, Jinxian Liu, Wenjun Zhang.

Mesh2Animation: Unsupervised Animating for Quadruped 3D Objects *Under Submission*
Zhenbo Yu*; **Junjie Wang***; Zhongyin Zhao; BingBing Ni; Wenjun Zhang

Unifying the Neural Network Prior with the Physical Model for Robust Structured Illumination Microscopy *Under Submission*
Junjie Wang; Xiaoyan Wu†; Jingzheng Huang; Guihua Zeng

Industry Experience

Deptrum Technology AI Algorithm Group Shanghai, China

Algorithm & Engineering; Intern 2020.7-2020.10, 2021.1-2021.5

Project: Face Anti-Spoofing.

Achievements: Passed BCTC Test(Team); Performance S+(Personal).

1. Program/Revise the data collection software(C++, Qt).
2. Train anti-spoofing neural networks for IR images and depth images.
3. Deploy the trained models on devices(OpenCV,ONNX,C++)
4. Survey 2D key-point estimation and deploy on mobile devices(C++,TNN).

Projects

3D Virtual Try-On MetaCube Lab, SJTU

Research Project 2022.3-2022.7

1. Survey existing 3D virtual try-on methods.
2. Propose a two-stage graph neural network, which leverages per-frame dynamics and can generalize across cloths of different granularities.
3. Adapt ARCSim(a simulation engine,C++) for SMPL Model.

MetaSJTU MetaCube Lab, SJTU

Engineering Project Person In Charge 2022.9-2022.11

Background: Build a digital twin of SJTU, where users have their own stylized avatars and can interact in various manners.

1. Implement the basic game logic(e.g. controller, multi-player) with Unity.
2. Integrate SMPL(textured) and RPM avatar creator into Unity.
3. Integrate real-time motion/face capture with mediapipe.js(Web-Unity communication).

MetaAvatar MetaCube Lab, SJTU

Engineering Project Person In Charge 2023.3-2023.7

1. Re-produce the pipeline of paper "AgileAvatar", which is a cascaded framework to estimate stylized parameters from an input RGB image.
2. Implement an avatar creator with unity to generate paired data.
3. Implement a 3D backend with flask and blender for packaging models.
4. Implement a web demo with vue+typescript.
5. Deploy the latest mediapipe solution for blendshape estimation and real-time facial motion capture. Deploy Chat-GLM, TTS and audio2face modules to endower the virtual avatar with the ability to talk with users in voice.

Teaching

Teaching assistant, Antai College of Economics Fall 2022

CS1501: C++ Programming

Basic programming and designing concepts with C++.

Skills

Proficient in: Python, Pytorch, Linux, Markdown

Familiar with: C++, Javascript/Typescript/Vue, C#, Unity, Tensorflow, Flask

Other interests

Reading(History and philosphy), Photography, Travelling