

Guorun Wang

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Education

Tongji University, College of Electronics and Information Engineering

Data Science and Big Data Technology

Major GPA: 4.73/5.0 which is equivalent to 92.33 on 100 basis

Research Interests

Multimodal, NLP, 2D&3D vision, Efficiency

Research Experience

- Research assistant in Cognitive and Intelligent Computing Lab, Tongji University, working on Multimodal in image caption, multi-modal classification, and diffusion model with Professor [Yaoru Sun](#) and Dr. Jun Yang. (09/2021 ~ now)
- Research assistant in [H2lab](#), University of Washington, working on Parameter-efficient NLP with Dr. [Qingqing Cao\(Postdoc\)](#). (07/2022 ~ 03/2023)
- Research intern in [contex.ai](#) with faculties of Imperial College, working on 3d NerFs and understanding with Professor [Lucia Specia](#) and Dr. [Viktoriia Sharmanska](#). (08/2022 ~ 09/2022)
- Robustness of human body reconstruction and segmentation method in Tongji University, working with Professor Kuo-yi Lin. (05/2021 ~ 06/2022)

Awards

- First Prize NOIP 2017 (C++) ——Top 5%
- 2022 Second Prize Tongji Scholarship, 2021 Third Prize Tongji Scholarship, 2020 Third Prize Tongji Scholarship
- First Prize The 4th China College Students Mechanical Engineering Innovation and Creativity Competition (2021)

Publication

Paper Entering Publication Schedule:

U2 Net-Plus and background removal based PIFu-HD : Human Body Reconstruction in Complex Background (Int. J. of Internet Manufacturing and Services)
DOI: 10.1504/IJIMS.2022.10050483

Task-oriented Memory-efficient Pruning-Adapter

<https://arxiv.org/abs/2303.14704>

Accepted Paper :

What are You Posing: A gesture description dataset based on coarse-grained semantics (ICNLP 2023)

- in press

Papers under Review and Manuscripts:

Pixel Difference Convolution for Deepfake Detection

Deep Pixel-wise Textures for Construction Waste Classification(IEEE Transactions on Instrumentation & Measurement)

Using diffusion model to improve RGBD segmentation(*manuscripts*)

Professional Experience

Applying Machine Learning to Engineering and Science - Professional Certificate Program offered by MITxPRO (06/2021 ~ 08/2021)

- Foundational Machine Learning concepts
- Programming and application of Data Science

Assistant of Parallel and Distributed System Architecture Technology offered by Tongji University (09/2021 ~ 01/2022)

- Building a Linux cloud server for CUDA accelerated source code testing
- Assigning an exclusive account to each user according to his/her ID
- Testing homework of BMP image convolution using MPI, Pthread, OpenMP, CUDA

Bug reporter -- For the verification code vulnerability of Tongji Educational Administration System (12/2021 ~ 01/2022)

- Writing crawler software which can use computer vision technology to crack verification code automatically and crawl credit data and consumption data
- Reported to the Network Information Office of Tongji University
- Positive feedback and acknowledgements

Industrial Projects

Project: Intelligent Dance Evaluation and Teaching Mode based on Pose Estimation

Team member

May 2021 - June 2022

Tutor: Kuo-yi Lin

- Have won many awards
- Computer Vision and OpenPose
- Deployed on a large server in Pudong, Shanghai

Project: Driving status recognition

Team leader

May 2021 - June 2022

Tutor: Kuo-yi Lin

- Corporating with Baidu
- Computer Vision and Face recognition
- Deployed on a server in Paddle

Project: Financial statement identification

Team member

January 2022 - June 2022

- Translation of original image to Json file
- Computer Vision

Skills

- Language Ability: Toefl 93,
- Programming Languages: Proficient in Python, C++,
- Software Tools: Proficient in MySQL, MongoDB, Hbase, Bash and GIS.
- Deep Learning Framework: Proficient in Tensorflow, Keras, Pytorch.