

Ze (Edward) Ma

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EDUCATION

Shanghai Jiao Tong University

Bachelor of Engineering in Information Engineering

Shanghai, China

Sep. 2017 - June 2021

University of California, Berkeley

Exchange Student in EECS

California, America

Jan. 2020 - May 2020

GPA: 91.2/100

Rank: 4/147 (*Top 3%*)

Selected Courses: Linear Algebra, Probability and Statistics, Discrete Math, C++ programming, Data Structure and Algorithms, Intro to Computer System I, Intro to Computer System II, ARM Embedded Systems, Intro to Artificial Intelligence, Computer Vision

WORKING PAPER&PUBLICATIONS

AMP: Adversarial Motion Priors for Stylized Physics-Based Character Control

Xue Bin Peng, Ze Ma*, Pieter Abbeel, Sergey Levine, Angjoo Kanazawa*

In submission to SIGGRAPH 2021

Learning Kinematic Dictionary for 3D Human Pose and Shape Reconstruction

Ze Ma, Yifan Yao, Pan Ji, Chao Ma

In submission to AAAI 2021

PaStaNet: Toward Human Activity Knowledge Engine

Yong-Lu Li, Liang Xu, Xinpeng Liu, Xijie Huang, Yue Xu, Shiyi Wang, Hao-Shu Fang, Ze Ma, Mingyang Chen, Cewu Lu

Conference on Computer Vision and Pattern Recognition (CVPR), 2020

Transferable Interactiveness Prior for Human-Object Interaction Detection

Yong-Lu Li, Siyuan Zhou, Xijie Huang, Yue Xu, Ze Ma, Hao-Shu Fang, Yan-Feng Wang, Cewu Lu

Conference on Computer Vision and Pattern Recognition (CVPR), 2019

EXPERIENCE

Distributed System for Reinforcement Learning

Machine Learning Engineering Intern

Nov. 2020 – present

SenseTime Research, Shanghai

- Involved in developing a distributed system for multi-agent reinforcement learning

Reinforcement Learning for Animation

Research Assistant, Advised by Angjoo Kanazawa, Pieter Abbeel, Sergey Levine

Jan. 2020 – present

BAIR, UC Berkeley

- Proposed an adversarial learning framework to leverage unstructured motion data for physically simulated character animation.
- Built a reinforcement learning system for users to use high-level instructions to control a character's behavior.

3D Human Reconstruction

Research Assistant, Advised by Chao Ma

May 2019 - Jan. 2020

AI Institute, SJTU

- Proposed a novel prior for 3D human reconstruction to explicitly regularize the solution space of joint rotations, which reduced reconstruction error by 4% on Human3.6M, MPI-INF-3DHP and UP-3D datasets.

Cross-domain Action Recognition

Research Assistant, Advised by Cewu Lu

May 2018 - April 2019

Machine Vision and Intelligence Group, SJTU

- Involved in building a large-scale human activity knowledge engine, **HAKE**, to improve the state-of-the-art few-shot learning and transfer learning algorithms on human action recognition.
- Designed the Activity2Vec language module to convert the low-level interactions in terms of phrases to word embeddings, and inferred the high-level human actions with the implicit semantics, and enhanced the accuracy of action recognition by ~ 10% on HICO, HICO-DET, V-COCO and AVA datasets.

SELECTED REWARDS

National Scholarship (Top 2% in SJTU)

Academic Excellence Scholarship (Class A) (Top 1% in SJTU)