CHUAN WEN

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EDUCATION

Tsinghua University *Sep 2020 - Present*
Institute for Interdisciplinary Information Sciences
Ph.D student in Computer Science, advised by Prof. Yang Gao

Shanghai Jiao Tong University *Sep 2016 - June 2020*
School of Electronic Information and Electricity Engineering
B.S. in Information Engineering (Graduate with honor)

AREAS OF INTERESTS

The robustness and sample efficiency of embodied AI, especially robotics manipulation and locomotion.

PAPERS TO BE RELEASED

[1] Chengbo Yuan, **Chuan Wen**, Tong Zhang, Yang Gao. General Flow as Foundation Affordance for Scalable Robot Learning.

PUBLICATION

[1] **Chuan Wen***, Xingyu Lin*, John Ian Reyes So*, Kai Chen, Qi Dou, Yang Gao, Pieter Abbeel. Any-point Trajectory Modeling for Policy Learning. Published at *RSS2024*.

[2] **Chuan Wen**, Dinesh Jayaraman, Yang Gao. Can Transformers Capture Spatial Relations between Objects? Published at *ICLR2024*.

[3] Xianfan Gu, **Chuan Wen**, Jiaming Song, Yang Gao. Seer: Language Instructed Video Prediction with Latent Diffusion Models. Published at *ICLR2024*.

[4] Jiaye Teng*, **Chuan Wen***, Dinghuai Zhang*, Yoshua Bengio, Yang Gao, Yang Yuan. Predictive Inference with Feature Conformal Prediction. Published at *ICLR2023*.

[5] **Chuan Wen**, Jianing Qian, Jierui Lin, Jiaye Teng, Dinesh Jayaraman, Yang Gao. Fighting Fire with Fire: Avoiding DNN Shortcuts through Priming. Published at *ICML2022*

[6] Chia-Chi Chuang*, Donglin Yang*, **Chuan Wen***, Yang Gao. Resolving Copycat Problems in Visual Imitation Learning via Residual Action Prediction. Published at *ECCV2022*

[7] **Chuan Wen*,** Jierui Lin*, Jianing Qian, Yang Gao, Dinesh Jayaraman. Keyframe-Focused Visual Imitation Learning. Published at *ICML2021*

[8] **Chuan Wen*,** Jierui Lin*, Trevor Darrell, Dinesh Jayaraman, Yang Gao. Fighting Copycat Agents in Behavioral Cloning from Observation Histories. Published at *NeurIPS2020*

[9] **Chuan Wen,** Yujie Pan, Jie Chang, Ya Zhang, Siheng Chen, Yanfeng Wang, Mei Han, Qi Tian. Handwritten Chinese Font Generation with Collaborative Stroke Refinement. Published at *WACV2021*

[10] Haiwen Wang, Ruijie Wang, **Chuan Wen,** Shuhao Li, Yuting Jia, Weinan Zhang, Xinbing Wang. Author Name Disambiguation on Heterogeneous Information Network with Adversarial Representation Learning. Published at *AAAI2020*

EXPERIENCES

Visiting Scholar, Robot Learning Lab, UC Berkeley BAIR *Sep 2023 - Now*

- *Supervisor: Prof. Pieter Abbeel, Dr. Xingyu Lin*
- We study to boost the generalization performance of robotics tasks with vision foundation models.

Research Assistant, EVAR Lab, Tsinghua University *Sep 2020 - Now*

- *Supervisors: Prof. Yang Gao, Prof. Dinesh Jayaraman*
- We study the robustness and safety of the current Deep Neural Networks, especially in the computer vision and policy learning areas. Motivated by the Causal Inference literature, we aim to propose unbiased learning algorithms to help the DNNs learn the causally correct logic and avoid the spurious correlations or shortcut solutions.

Research Intern, Vision Group, UC Berkeley BAIR *Aug 2019 - Aug 2020*

- *Supervisors: Prof. Trevor Darrell, Prof. Yang Gao*
- In POMDP, a common instance of causal confusion occurs when expert actions are strongly correlated over time: the imitator learns to cheat by predicting the expert's previous action. To combat this "copycat problem", we propose an adversarial approach to learn a feature representation that removes excess information about the previous expert action nuisance correlate.

Research Intern, Turing Sense *Jan 2019 - Jul 2019*

- *Supervisor: Prof. Pingzhong Tang*
- I am in charge of developing fine-grained and unbiased visual classification algorithms for the APP identifying the authenticity of luxuries bags, shoes and watches.

Research Assitant, Cooperative Medianet Innovation Center, SJTU *Aug 2018 - Nov 2020*

- *Supervisors: Prof. Ya Zhang, Prof. Siheng Chen*
- We study Deep Generative Models for the handwritten Chinese Font style transfer task. By integrating the deep convolutional networks with traditional morphological Transformations, we propose a Chinese Font style transfer model consisting of three modules: collaborative stroke refinement, online zoom augmentation and adaptive deformation. The proposed method achieves SOTA fewshot performance with only 750 training samples.

Research Assistant, Intelligent Internet of Things Lab, SJTU *May 2018 - Sept 2018*

- *Supervisors: Prof. Xinbing Wang, Prof. Weinan Zhang*
- We construct a large-scale academic knowledge graph AceKG, supported by Acemap. It includes 114.30 million academic entities based on a consistent ontology.
- Based on AceKG, we study an author name disambiguation algorithm (named *AND*) for the system to distinguish the papers written by the authors with the same names. The algorithm is based on GraphGAN and self-training paradigm.
- We develop a knowledge-base QA system for AceKG, and propose an algorithm named *RI-SSGE* to transform the natural language to SPARQL Query for AceKG system, which combines rule inference and sentence schema graph embedding.

HONORS & AWARDS

Toyota Scholarship *2021*
Outstanding Graduates *2020*

TECHNICAL STRENGTHS

Computer Languages Python, C/C++
Deep Learning Framework Pytorch, Tensorflow, Keras

OTHERS

Reviewer Service NeurIPS, ICLR, ICML, CVPR, ICCV, ECCV, WACV.