Fuwen TAN

CONTACT

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SUMMARY

I am a researcher specializing in Efficient Machine Learning, with a focus on lightweight model design, data-efficient representation learning, and on-device AI. My work aims to make ML more accessible and practical for real-world applications.

RESEARCH

MobileQuant: Mobile-friendly Quantization for On-device Language Models
Fuwen Tan, Royson Lee, Lukasz Dudziak, Shell Xu Hu, Sourav Bhattacharya, Timothy Hospedales, Georgios Tzimiropoulos, Brais Martinez
Conf. on Empirical Methods in Natural Language Processing, **EMNLP Findings**, 2024

Effective Self-supervised Pre-training on Low-compute Networks without Distillation
Fuwen Tan, Fatemeh Saleh, Brais Martinez
International Conference on Learning Representations (**ICLR**), 2023

iBoot: Image-bootstrapped Self-Supervised Video Representation Learning
Fatemeh Saleh, **Fuwen Tan**, Adrian Bulat, Georgios Tzimiropoulos, Brais Martinez
Arxiv, 2022

EdgeViTs: Competing Light-weight CNNs on Mobile Devices with Vision Transformers
Junting Pan, Adrian Bulat, **Fuwen Tan**, Xiatian Zhu, Lukasz Dudziak, Hongsheng Li, Georgios Tzimiropoulos, Brais Martinez
European Conference on Computer Vision (**ECCV**), 2022

Instance-level Image Retrieval using Reranking Transformers
Fuwen Tan, Jiangbo Yuan, Vicente Ordonez
International Conference on Computer Vision (**ICCV**), 2021

Curriculum Labeling: Self-paced Pseudo-Labeling for Semi-Supervised Learning
Paola Cascante-Bonilla, **Fuwen Tan**, Yanjun Qi, Vicente Ordonez
AAAI Conference on Artificial Intelligence. (**AAAI**), 2021

Drill-down: Interactive Retrieval of Complex Scenes using Natural Language Queries
Fuwen Tan, Paola Cascante-Bonilla, Xiaoxiao Guo, Hui Wu, Song Feng, Vicente Ordonez
Conf. on Neural Information Processing Systems (**NeurIPS**), 2019

Text2Scene: Generating Compositional Scenes from Textual Descriptions
Fuwen Tan, Song Feng, Vicente Ordonez
Conf. on Computer Vision and Pattern Recognition (**CVPR**), 2019, **Oral**, **Best Paper Finalist**

Where and Who? Automatic Semantic-Aware Person Composition
Fuwen Tan, Crispin Bernier, Benjamin Cohen, Vicente Ordonez, Connelly Barnes
Winter Conference on Applications of Computer Vision (**WACV**), 2018

FaceCollage: A Rapidly Deployable System for Real-time Head Reconstruction for On-The-Go 3D Telepresence
Fuwen Tan, Chi-Wing Fu, Teng Deng, Jianfei Cai, Tat Jen Cham
ACM Multimedia (**ACM MM, full paper**), 2017

High-Quality Kinect Depth Filtering For Real-time 3D Telepresence

Mengyao Zhao, **Fuwen Tan**, Chi-Wing Fu, Chi-Keung Tang, Jianfei Cai, Tat Jen Cham
Conf. on Multimedia and Expo (**ICME**), 2013

Field-Guided Registration for Feature-Conforming Shape Composition
Hui Huang, Minglun Gong, Daniel Cohen-Or, Yaobin Ouyang, **Fuwen Tan**, Hao Zhang
SIGGRAPH Asia, 2012

Education

University of Virginia — Charlottesville, United States
Ph.D. in Computer Science — Aug.2015 - May.2021
Advisor: Vicente Ordóñez Román

Zhejiang University — Hangzhou, China
M.S.in Mathematics — Sep.2010 - Jun.2012

Sun Yat-sen University — Guangzhou, China
B.S. in Mathematics — Sep.2006 - Jun.2010

Experience

Samsung AI Center, Cambridge, United Kingdom — June.2021 - Present
Researcher at the Future Interaction Team
R&D on Vision & Language, and on-device LLMs.

Nanyang Technological University, Singapore — Aug.2012 - Jul.2015
Research Associate at the BeingThere Centre, Institute for Media Innovation
Design and implement a low-cost, fast and realistic system for personal 3D telepresence.

Service

Reviewer / Program Committee

ICLR, ICML, ECCV, NeurIPS, EMNLP	2024
AAAI, ICLR, PAMI, ICCV, NeurIPS	2023
ICLR, CVPR, ICML (Outstanding Reviewer), ECCV, NeurIPS	2022
AAAI, ICLR, CVPR (Outstanding Reviewer), IJCAI, ICML, ICCV, NeurIPS	2021
AAAI, CVPR, ECCV (Outstanding Reviewer), NeurIPS	2020
ICCV	2019