## Fuwen TAN


CONTACT

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SUMMARY

I am a Research Scientist in the Samsung AI Center, Cambridge (SAIC-Cambridge), working on Vision & Language, and on-device LLMs.

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

RESEARCH

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
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

## 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.
Deploy LLMs on mobile devices (e.g. TinyLlaMA-1.1B on S23 HTP with 12 tok/s).

**Adobe Research, College Park, United States** June.2019 - Aug.2019
*Machine learning intern at the Document Intelligence Lab*
Research on structured representations for multimodal document analysis.

**Amazon A9, Palo Alto, United States** May.2018 - Aug.2018
*Applied scientist intern at the Visual Search & AR team*
Design and implement a working solution for an improved image segmentation approach for the creation of AR models.

**Honda Research Institute, Mountain View, United States** May.2016 - Aug.2016
*Research intern in the Perception Group*
Research on applications of Deep Learning to traffic participant detection.

**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**

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|---|---|
| ICLR, ICML | 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 |