# Fuwen TAN

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CONTACT

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SUMMARY

I'm a researcher in Efficient Machine Learning, specializing in lightweight models, data-efficient learning, and on-device AI.

PUBLICATION

Progressive Mixed-Precision Decoding for Efficient LLM Inference
Hao Mark Chen, **Fuwen Tan**, Alexandros Kouris, Royson Lee, Hongxiang Fan, Stylianos I. Venieris
International Conference on Learning Representations (**ICLR**), 2025

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

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 presentation**
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

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|---|---|---|
| EDUCATION | **University of Virginia**<br>Ph.D. in Computer Science | Charlottesville, United States<br>Aug.2015 - May.2021 |
| | **Zhejiang University**<br>M.S.in Mathematics | Hangzhou, China<br>Sep.2010 - Jun.2012 |
| | **Sun Yat-sen University**<br>B.S. in Mathematics | Guangzhou, China<br>Sep.2006 - Jun.2010 |
| EXPERIENCE | **Bytedance, United States**<br>*R&D in Efficient Machine Learning* | Jan., 2025 - Present |
| | **Samsung AI Center, Cambridge, United Kingdom**<br>*R&D in Efficient Machine Learning* | Jun., 2021 - Jan., 2025 |
| | **Nanyang Technological University, Singapore**<br>*R&D in 3D Telepresence* | Aug.2012 - Jul.2015 |
| TALKS | **Toward Efficient On-device AI: the Model, the Training, and the Deployment**<br>*University of Surrey, November 2024* | |
| SERVICE | **Program Committee**<br>Siggraph Asia 2024 (Technical Communications & Posters) | |
| | **Reviewer**<br>Computer Vision: CVPR (Outstanding Reviewer), ECCV(Outstanding Reviewer), ICCV, PAMI<br>Machine Learning: ICML(Outstanding Reviewer), NeurIPS, ICLR, AAAI, IJCAI<br>Natural Language Processing: EMNLP | |

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|---|---|---|
| AWARDS | Computer Vision and Pattern Recognition (**CVPR**) **Best Paper Finalist** | 2019 |
| | European Conference on Computer Vision (**ECCV**) Outstanding Reviewer | 2020 |
| | Computer Vision and Pattern Recognition (**CVPR**) Outstanding Reviewer | 2021 |
| | International Conference on Machine Learning (**ICML**) Outstanding Reviewer | 2022 |