

# Yuedong (Donny) CHEN

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## Education

**Monash University, Melbourne, Australia** (Top 8 University in Australia)

Jul 2021 - Apr 2025

(Expected)

Ph.D. Candidate in Information Technology. Supervisors: Jianfei Cai (IEEE Fellow), Tat-Jen Cham (with NTU, SG)

- Research topic: reconstructing and editing 3D scenes by leveraging sparse-view 2D data

**Sun Yat-sen University, Guangzhou, China** (Top 10 University in China)

Aug 2016 - Jun 2018

M.E. in Software Engineering

GPA: 3.9/4.0

**Sun Yat-sen University, Guangzhou, China** (Top 10 University in China)

Sept 2012 - Jun 2016

B.E. in Software Engineering

GPA: 3.7/4.0

- Additional program: exchange student at National Chi Nan University (Taiwan) for one semester.

## Work Experience

**Institute for Media Innovation (IMI), Nanyang Technological University (NTU)**

Singapore, Singapore

Research Associate. Manager: Tat-Jen Cham

Jan 2019 - Apr 2021

- Research topic: enhancing visual emotion recognition by using human prior knowledge.
- Two conference papers accepted by: IEEE VCIP-19, ACM-MM-22. One journal paper accepted by: Pattern Recognition.

**AI Lab, Lenovo Research**

Beijing, China

Research Intern. Supervisors: Jianfeng Wang

Jul 2018 - Dec 2018

- Research topic: improving facial expression recognition through label enhancement.
- One paper accepted by: CVPR-20. One popular re-implementation project: `animation_replicate` (Starred:200+).

## Research Interests

3D Computer Vision, Generative Modeling, Neural Rendering, Affective Computing

## Selected Publications

**MVSplat360: Feed-Forward 360 Scene Synthesis from Sparse Views**

NeurIPS

Yuedong Chen, Chuanxia Zheng, Haoifei Xu, Bohan Zhuang, Andrea Vedaldi, Tat-Jen Cham, and Jianfei Cai

2024

**TL;DR:** MVSplat360 is a feed-forward model that combines 3DGS with SVD to achieve 360° NVS for complex scenes with  $\leq 5$  input views.

**MVSplat: Efficient 3D Gaussian Splatting from Sparse Multi-View Images**

ECCV (Oral)

Yuedong Chen, Haoifei Xu, Chuanxia Zheng, Bohan Zhuang, Marc Pollefeys, Andreas Geiger, Tat-Jen Cham and

Jianfei Cai

2024

- **TL;DR:** MVSplat is an efficient feed-forward 3D Gaussian Splatting model learned from sparse multi-view images.
- **Featured at:** GitHub (800+ Stars); HackerNews (130+ Upvotes)

**MuRF: Multi-Baseline Radiance Fields**

CVPR

Haoifei Xu, Anpei Chen, Yuedong Chen, Christos Sakaridis, Yulun Zhang, Marc Pollefeys, Andreas Geiger, *et al.*

2024

**TL;DR:** MuRF is a feed-forward approach for sparse view reconstruction with small and large baselines, and varying numbers of views.

**Explicit Correspondence Matching for Generalizable Neural Radiance Fields**

Under Review at TPAMI

Yuedong Chen, Haoifei Xu, Qianyi Wu, Chuanxia Zheng, Tat-Jen Cham, and Jianfei Cai

2023

**TL;DR:** MatchNeRF is a generalizable NeRF approach that employs explicit correspondence matching as the geometry prior.

**Sem2NeRF: Converting Single-View Semantic Masks to Neural Radiance Fields**

ECCV

Yuedong Chen, Qianyi Wu, Chuanxia Zheng, Tat-Jen Cham, and Jianfei Cai

2022

**TL;DR:** Sem2NeRF pioneers the task of converting a single-view object semantic mask to the corresponding 3D scene.

**Object-Compositional Neural Implicit Surfaces**

ECCV

Qianyi Wu, Xian Liu, Yuedong Chen, Kejie Li, Chuanxia Zheng, Jianfei Cai, and Jianmin Zheng

2022

**TL;DR:** ObjectSDF extracts the high-fidelity geometry of each object from a sparse set of input images and semantic masks.

**Towards Unbiased Visual Emotion Recognition via Causal Intervention**

ACMMM

Yuedong Chen, Xu Yang, Tat-Jen Cham, and Jianfei Cai

2022

## GeoConv: Geodesic Guided Convolution for Facial Action Unit Recognition

Pattern Recognition

Yuedong Chen, Guoxian Song, Zhiwen Shao, Jianfei Cai, Tat-Jen Cham, and Jianming Zheng

2022

## Label Distribution Learning on Auxiliary Label Space Graphs for Facial Expression Recognition

CVPR

Shikai Chen, Jianfeng Wang, Yuedong Chen, Zhongchao Shi, Xin Geng, and Yong Rui

2020

## Facial Motion Prior Networks for Facial Expression Recognition

IEEE VCIP (Oral)

Yuedong Chen, Jianfeng Wang, Shikai Chen, Zhongchao Shi, and Jianfei Cai

2019

## Professional Skills

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**Programming** Python (PyTorch, NumPy, etc.), C++, HTML/CSS, JavaScript, etc.

**Languages** English (working proficiency), Teochew (native speaker), Mandarin (native speaker), Cantonese (fluent), Singlish (basic).

## Academic Services

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### Invited Talks

AJCAI24 (26/11/24), Wayve UK (08/11/24), ECCV24 Oral (02/10/24), CAD&CG Lab ZJU(30/08/24), SHUZIHUANYU (27/08/24), 3DCVer (20/08/24)

### Conference Reviewer

ECCV('24), CVPR('23,'24,'25), ICCV('23), NeurIPS('24), ICLR('25), ICML('25), 3DV('24), ACM MM('21-'24), AAAI('24), ACCV('24), ISMAR('23,'24), IEEE VR('24)

### Journal Reviewer

TPAMI, IJCV, TIP, TMM, TCSVT, TOMM, TVCJ, Computers & Graphics, The Visual Computer