

Qingnan Fan 1991.03.21

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Work Experience

VIVO

Lead Researcher, 3D Photography Research Center

July '23 – Today

Tencent AI Lab

Senior Researcher, Visual Computing Center

May '21 – June '23

Education

Stanford University

PostDoc, Computer Science

Sept.'19 – Mar.'21

Supervisor: Leonidas Guibas

Shandong University

Ph.D., Computer Science and Technology

Sept.'14 – Jun.'19

Supervisor: Baoquan Chen

Shandong University

B.E., Software Engineering

Sept.'10 – Jun.'14

Research Experience

Beijing Film Academy

Research Intern, Advanced Innovation Center for Future Visual Entertainment

Apr.'18 – Aug.'19

Supervisor: Prof. Baoquan Chen

Cambridge University

Visiting Student, Cambridge Image Analysis Group

Aug.'18 – Oct.'18

Supervisor: Prof. Carola-Bibiane Schönlieb

Microsoft Research Asia (MSRA)

Research Intern, Visual Computing Group

Sept.'16 – Mar.'18

Collaborator: Xin Tong, Gang Hua, David Wipf and Jiaolong Yang

Tel Aviv University

Visiting Student

Apr.'15 – May'15

Supervisor: Prof. Daniel Cohen-Or

Hebrew University of Jerusalem

Visiting Student

Oct.'14 – Nov.'14

Supervisor: Prof. Dani Lischinski

Selected Publications

Embodied AI (3DV):

2023: Scene-aware Activity Program Generation with Language Guidance.

Zejia Su, **Qingnan Fan**, Xuelin Chen, Oliver van Kaick, Hui Huang, Ruizhen Hu.

SIGGRAPH Asia & TOG.

2023: E-ASE: Learning Conditional Adversarial Skill Embeddings for Elite Physics-based Characters.

- Zhiyang Dou, Xuelin Chen, **Qingnan Fan**, Taku Komura, Wenping Wang.
SIGGRAPH Asia.
- 2023: 3D-Aware Object Goal Navigation via Simultaneous Exploration and Identification.
Jiazhao Zhang*, Liu Dai*, Fanpeng Meng, **Qingnan Fan**, Xuelin Chen, Kai Xu, He Wang.
CVPR.
- 2022: Towards Accurate Active Camera Localization.
Qihang Fang*, Yingda Yin*, **Qingnan Fan**, Fei Xia, Siyan Dong, Sheng Wang, Jue Wang, Leonidas Guibas, Baoquan Chen.
ECCV.
- 2022: AdaAfford: Learning to Adapt Manipulation Affordance for 3D Articulated Objects via Few-shot Interactions.
Yian Wang*, Ruihai Wu*, Kaichun Mo*, Jiaqi Ke, **Qingnan Fan**, Leonidas Guibas, Hao Dong.
ECCV.
- 2022: Multi-Robot Active Mapping via Neural Bipartite Graph Matching.
Kai Ye*, Siyan Dong*, **Qingnan Fan**, He Wang, Li Yi, Fei Xia, Jue Wang, Baoquan Chen.
CVPR.
- 2021: CAPTRA: Category-level Pose Tracking for Rigid and Articulated Objects from Point Clouds.
He Wang*, Yijia Weng*, Qiang Zhou, Yuzhe Qin, Yueqi Duan, **Qingnan Fan**, Baoquan Chen, Hao Su, Leonidas Guibas.
ICCV (Oral).
- 2021: Contrastive Multimodal Fusion with TupleInfoNCE.
Yunze Liu, **Qingnan Fan**, Shanghang Zhang, Hao Dong, Thomas Funkhouser, Li Yi.
ICCV.
- 2021: Robust Neural Routing Through Space Partitions for Camera Relocalization in Dynamic Indoor Environments.
Siyan Dong*, **Qingnan Fan***, He Wang, Ji Shi, Li Yi, Thomas Funkhouser, Baoquan Chen, Leonidas Guibas.
CVPR (Oral).
- 2020: Generative 3D Part Assembly via Dynamic Graph Learning.
Jialei Huang*, Guanqi Zhan*, **Qingnan Fan**, Kaichun Mo, Lin Shao, Baoquan Chen, Leonidas Guibas, Hao Dong.
NeurIPS.

Computational Photography (Image and Video Processing):

- 2022: ADeLA: Automatic Dense Labeling with Attention for Viewpoint Shift in Semantic Segmentation.
Yanchao Yang*, Hanxiang Ren*, He Wang, Bokui Shen, **Qingnan Fan**, Youyi Zheng, C. Karen Liu, Leonidas Guibas.
CVPR (Oral).
- 2021: A General Decoupled Learning Framework for Parameterized Image Operators.
Qingnan Fan*, Dongdong Chen*, Lu Yuan, Gang Hua, Nenghai Yu, Baoquan Chen.
TPAMI.
- 2020: Controllable Image Processing via Adaptive FilterBank Pyramid.
Dongdong Chen, **Qingnan Fan**, Jing Liao, Angelica Aviles-Rivero, Lu Yuan, Nenghai Yu, Gang Hua.
TIP.
- 2019: Mirror, Mirror, on the Wall, Who's Got the Clearest Image of Them All? - A Tailored Approach to Single Image Reflection Removal.

Daniel Heydecker*, Georg Maierhofer*, Angelica Aviles-Rivero*, **Qingnan Fan**,
Dongdong Chen, Carola-Bibiane Schönlieb, Sabine Süsstrunk.
TIP.

2018: Image Smoothing via Unsupervised Learning.

Qingnan Fan, Jiaolong Yang, David Wipf, Baoquan Chen, Xin Tong.
SIGGRAPH Asia & TOG.

2018: Decouple Learning for Parameterized Image Operators.

Qingnan Fan*, Dongdong Chen*, Lu Yuan, Gang Hua, Nenghai Yu, Baoquan Chen.
ECCV.

2018: Revisiting Deep Intrinsic Image Decompositions.

Qingnan Fan, Jiaolong Yang, Gang Hua, Baoquan Chen, David Wipf.
CVPR (Oral).

2017: A Generic Deep Architecture for Single Image Reflection Removal and Image Smoothing.

Qingnan Fan, Jiaolong Yang, Gang Hua, Baoquan Chen, David Wipf.
ICCV.

2015: JumpCut: Non-Successive Mask Transfer and Interpolation for Video Cutout.

Qingnan Fan, Fan Zhong, Dani Lischinski, Daniel Cohen-Or, Baoquan Chen.
SIGGRAPH Asia & TOG.

Talks

APR. 2022: Active 3D scene understanding and its applications

“三维视觉与智能图形” 前沿论坛, 图图名师讲堂, China

OCT. 2021: Visual Localization

Embodied AI Workshop, Valse, China

JAN. 2019: Deep Learning in Computational Photography

USC ICT/UW Reality Lab/Berkeley/Stanford/Google/MSR, US

DEC. 2018: Deep Learning for Single Image Artifact Removal

ACCV Tutorial 2018, Australia

DEC. 2018: Image Smoothing via Unsupervised Learning

SIGGRAPH Asia 2018, Japan; GAMES Webinar, China

AUG. 2018: Discovering Unsupervised Learning in Image Processing

CIA, Cambridge University, UK

JUN. 2018: Revisiting Deep Intrinsic Image Decomposition

CVPR 2018, USA

NOV. 2015: Interactive Real-time Video Segmentation

SIGGRAPH Asia 2015, Japan

Awards

2022: Tencent Outstanding Contributor

2020: CCF Doctorial Dissertation Award Nominee (CCF 优博提名)

2019: Outstanding Academic Achievement Award of Shandong University

2018: Academic Star Nominee of Shandong University (10/20000)

2018: National Scholarship

2016: Outstanding Academic Achievement Award of Shandong University

- 2015: Presidential Scholarship of Shandong University (35/20000)
(Highest honor for students in SDU, only 35 elected among around 20000 candidates)
- 2015: National Scholarship
- 2015: Pacemaker to Outstanding Graduate Student of Shandong University