

Fisher Yu

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Education

Ph.D. Computer Science <i>Princeton University</i>	2011 - 2018
M.S.E. Computer Science Engineering <i>University of Michigan – Ann Arbor</i>	2011
B.S.E. Computer Science Engineering <i>University of Michigan – Ann Arbor</i>	2010
Summa Cum Laude	
Math Minor in the College of Literature, Science, and the Arts	

Publications

Xin Wang, **Fisher Yu**, Ruth Wang, Trevor Darrell, Joseph E. Gonzalez.
“TAFE-Net: Task-Aware Feature Embeddings for Efficient Learning and Inference.”
In Submission.

Hou-Ning Hu, Qi-Zhi Cai, Dequan Wang, Ji Lin, Min Sun,
Philipp Krähenbühl, Trevor Darrell, **Fisher Yu**.
“Joint Monocular 3D Vehicle Detection and Tracking.”
In Submission.

Hang Gao, Huazhe Xu, Qi-Zhi Cai, Ruth Wang, **Fisher Yu**, Trevor Darrell.
“Disentangling Propagation and Generation for Video Prediction.”
In Submission.

Zhichao Yin, Trevor Darrell, **Fisher Yu**.
“Hierarchical Discrete Distribution Decomposition for Match Density Estimation.”
In Submission.

Bingyi Kang, Zhuang Liu, Xin Wang, **Fisher Yu**, Jiashi Feng, Trevor Darrell.
“Few-shot Object Detection via Feature Reweighting.”
In Submission.

Xinlei Pan, Xiangyu Chen, Qi-Zhi Cai, John F. Canny, **Fisher Yu**.
“Semantic Predictive Control for Interpretable and Efficient Policy Learning.”
In Submission.

Dequan Wang, Coline Devin, Qi-Zhi Cai, **Fisher Yu**, Trevor Darrell.
“Deep Object Centric Policies for Autonomous Driving.”
In Submission.

Xin Wang, **Fisher Yu**, Zi-Yi Dou, Joseph E. Gonzalez.
“SkipNet: Learning Dynamic Routing in Convolutional Networks.”
European Conference on Computer Vision, 2018.

Chaowei Xiao, Ruizhi Deng, Bo Li, **Fisher Yu**, Mingyan Liu, Dawn Song.
“Characterizing Adversarial Examples Based on Spatial Consistency Information for Semantic Segmentation.”
European Conference on Computer Vision, 2018.

Fisher Yu, Dequan Wang, Evan Shelhamer, Trevor Darrell
“Deep Layer Aggregation.”
Computer Vision and Pattern Recognition, 2018.

Wenqi Xian, Patsorn Sangkloy, Varun Agrawal, Amit Raj,
Jingwan Lu, Chen Fang, **Fisher Yu**, James Hays.
“TextureGAN: Controlling Deep Image Synthesis with Texture Patches.”
Computer Vision and Pattern Recognition, 2018.

Huiwen Chang, Jingwan Lu, **Fisher Yu**, Adam Finkelstein.
“MakeupGAN: Makeup Transfer via Cycle-Consistent Adversarial Networks.”
Computer Vision and Pattern Recognition, 2018.

Xin Wang, Yujia Luo, Daniel Crankshaw, Alexey Tumanov, **Fisher Yu**, Joseph E. Gonzalez.
“IDK Cascades: Fast Deep Learning by Learning not to Overthink.”
Conference on Uncertainty in Artificial Intelligence, 2018.

Fisher Yu, Wenqi Xian, Yingying Chen, Fangchen Liu, Mike Liao,
Vashisht Madhavan, Trevor Darrell.
“BDD100K: A Diverse Driving Video Database with Scalable Annotation Tooling.”
arXiv:1805.04687, 2018.

Fisher Yu, Vladlen Koltun, Thomas Funkhouser.
“Dilated Residual Networks.”
Computer Vision and Pattern Recognition, 2017.

Shuran Song, **Fisher Yu**, Andy Zeng, Angel X. Chang, Manolis Savva, Thomas Funkhouser.
“Semantic Scene Completion from a Single Depth Image.”
Computer Vision and Pattern Recognition, 2017.

Huazhe Xu, Yang Gao, **Fisher Yu**, Trevor Darrell.
“End-to-end Learning of Driving Models from Large-scale Video Datasets.”
Computer Vision and Pattern Recognition, 2017.

Patsorn Sangkloy, Jingwan Lu, Chen Fang, **Fisher Yu**, James Hays.
“Scribbler: Controlling Deep Image Synthesis with Sketch and Color.”
Computer Vision and Pattern Recognition, 2017.

Jerry Liu, **Fisher Yu**, Thomas Funkhouser.
“Interactive 3D Modeling with a Generative Adversarial Network.”
International Conference on 3D Vision, 2017

Judy Hoffman, Dequan Wang, **Fisher Yu**, Trevor Darrell.
“FCNs in the Wild: Pixel-level Adversarial and Constraint-based Adaptation.”
arXiv:1612.02649, 2016.

Fisher Yu and Vladlen Koltun
“Multi-Scale Context Aggregation by Dilated Convolutions.”
International Conference on Learning Representations, 2016.

Huiwen Chang, **Fisher Yu**, Jue Wang, Douglas Ashley, Adam Finkelstein.
“Automatic Triage for a Photo Series.”
ACM Transactions on Graphics (Proc. SIGGRAPH), August 2016.

Manolis Savva, **Fisher Yu**, Hao Su, et al.
“SHREC’16 Track` : Large-Scale 3D Shape Retrieval from ShapeNet Core55.”
EuroGraphics SHREC2016 Workshop Report, 2016.

Angel X. Chang, Thomas Funkhouser, Leonidas Guibas, Pat Hanrahan, Qixing Huang, Zimo Li, Silvio Savarese, Manolis Savva, Shuran Song, Hao Su, Jianxiong Xiao, Li Yi, **Fisher Yu**.
“ShapeNet: An Information-Rich 3D Model Repository.”
arXiv:1512.03012, Dec 2015.

Fisher Yu, Jianxiong Xiao, Thomas Funkhouser.
“Semantic Alignment of City-Scale LiDAR Data.”
Computer Vision and Pattern Recognition, 2015.

Fisher Yu, Ari Seff, Yinda Zhang, Shuran Song, Jianxiong Xiao.
“LSUN: Construction of a Large-scale Image Dataset using Deep Learning with Humans in the Loop.”
arXiv:1506.03365, Jun 2015.

Zhirong Wu, Shuran Song, Aditya Khosla, **Fisher Yu**,
Linguang Zhang, Xiaoou Tang, Jianxiong Xiao.
“3D ShapeNets: A Deep Representation for Volumetric Shape Modeling.”
Computer Vision and Pattern Recognition, 2015.

Fisher Yu and David Gallup.
“3D Reconstruction from Accidental Motion.”
Computer Vision and Pattern Recognition, 2014.

Jingwan Lu, **Fisher Yu**, Adam Finkelstein, Stephen DiVerdi.
“HelpingHand: Example-based Stroke Stylization.”
ACM Transactions on Graphics (Proc. SIGGRAPH), August 2012.

John P. Boyd and **Fisher Yu**.
“Comparing Seven Spectral Methods for Interpolation and for Solving the Poisson Equation in a Disk: Zernike Polynomials, Logan-Shepp Ridge Polynomials, Chebyshev-Fourier Series, Cylindrical Robert Functions, Bessel-Fourier Expansions, Square-to-Disk Conformal Mapping and Radial Basis Functions.”
Journal of Computational Physics, Volume 230, Issue 4, 2011.

Work Experience

Postdoctoral Researcher in UC Berkeley	02/2017 – Present
<ul style="list-style-type: none">• Advised by Prof. Trevor Darrell.• Work on various research projects on computer vision system.	
Research Consultant at Zoox Inc.	12/2016 – 06/2017
<ul style="list-style-type: none">• Work on vehicle state prediction problems about autonomous driving.	
Research Intern at Intel	02/2015 – 11/2015
<ul style="list-style-type: none">• Work with VCL team led by Vladlen Koltun.• Study semantic image and video segmentation problems.	
Software Engineer Intern at Google	06/2013 – 08/2013
<ul style="list-style-type: none">• Work with David Gallup and Steve Seitz.• Explore methods to reconstruct scenes with accidental motion.	
Software Engineer Intern at Facebook	06/2011 – 08/2011
<ul style="list-style-type: none">• Work with the search team.	
Interim Software Engineer at Qualcomm	06/2010 – 08/2010
<ul style="list-style-type: none">• Work with the graphics software team.	

Service

Co-chair of CVPR Workshop on Autonomous Driving (**2017, 2018, 2019**)
Organizer of 3D Deep Learning Workshop at NIPS 2016 (**3DDL2016**)
Co-chair of Large-scale Scene Understanding Challenge Workshop (**LSUN2015, LSUN2016**)
Organizer of CVPR2016 tutorial on 3D Deep Learning with Marvin
Reviewer of Neural Information Processing Systems (**NIPS**)
Reviewer of Conference on Computer Vision and Pattern Recognition (**CVPR**)
Reviewer of European Conference on Computer Vision (**ECCV**)
Reviewer of ACM Siggraph
Reviewer of ACM Siggraph Asia
Reviewer of Pacific Graphics

Reviewer of Robotics: Science and Systems (**RSS**)
Reviewer of International Journal of Computer Vision (**IJCV**)
Reviewer of Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)

Honors and Awards

James B. Angell Scholar, University of Michigan	2010
Senior Scholar, University of Michigan	2009 – 2010
Dean's list, University of Michigan	2008 – 2010
University Honors, University of Michigan	2008 – 2010
Undergraduate Student Summer Research Award, UM	2009
Dean's list, Shanghai Jiao Tong University	2006 – 2008
Outstanding Scholarship, Shanghai Jiao Tong University	2007 – 2008
Yunsha Scholarship, Shanghai Jiao Tong University	2008
First Place in Campus Talent Contest, Shanghai Jiao Tong University	2007

Teaching Experience

Instructor for MEng Capstone project course	09/2018 – 05/2019
Assistant Instructor for Computer Graphics	01/2012 – 05/2013
Assistant Instructor for Computing for the Physical and Social Sciences	09/2012 – 01/2013
Graduate Student Instructor for Foundations of Computer Science	01/2011 – 05/2011
Grader for Introduction to Artificial Intelligence	09/2009 – 04/2010
Grader for Advanced Calculus	09/2009 – 12/2009