Yuting Ye

CONTACT
INFORMATION

E-mail: yutingye.public@gmail.com
WWW: http://yutingye.info

WORK
EXPERIENCES

Reality Labs Research at Meta, *Research Scientist*   July 2015 - present
- Reconstruction and synthesis of realistic and stylized virtual avatars.
- Hand tracking using deep learning and computer vision (available on Quest VR headsets).

Industrial Light & Magic , *R&D Engineer*   January 2012 - July 2015
- Animation, rigging, facial performance capture and retargeting
- The future of animation production roadmap (relocated to Singapore for 6 months).

SKILLS

Languages and frameworks: C/C++, Python, PyTorch
Platforms: Linux, Windows.

SELECTED
PUBLICATIONS

Y. Zhang, D. Gopinach, **Y. Ye**, J. Hodgins, G. Turk, J. Won. "Simulation and Retargeting of Complex Multi-Character Interactions", in *ACM SIGGRAPH North America Conference* 2023.

S. Lee, S. Starke, **Y. Ye**, J. Won, A. W. Winkler. "QuestEnvSim: Environment-Aware Simulated Motion Tracking from Sparse Sensor Input", in *ACM SIGGRAPH North America Conference* 2023.

Y. Zhang, A. Clegg, S. Ha, G. Turk, **Y. Ye**. "Learning to Transfer In-Hand Manipulations Using a Greedy Shape Curriculum", in *Eurographics* 2023.

A. Adkins, A. Normoyle, L. Lin, Y. Sun, **Y. Ye**, M. Di Luca, S. Jörg. "How Important are Detailed Hand Motions for Communication for a Virtual Character Through the Lens of Charades?", in *ACM Transactions on Graphics (TOG)* 2023.

A. W. Winkler, J. Won, **Y. Ye**. "QuestSim: Human Motion Tracking From Sparse Sensors With Simulated Avatars". In *ACM SIGGRAPH Asia Conference* 2022.

Y. Jiang, **Y. Ye**, D. Gopinath, J. Won, A. W. Winkler, C. K. Liu. "Transformer Inertial Poser: Real-time Human Motion Reconstruction From Sparse IMUs With Simultaneous Terrain Generation". In *ACM SIGGRAPH Asia Conference* 2022.

A. Adkins, L. Lin, N. Normoyle, R. Canales, **Y. Ye**, S. Jörg. "Evaluating Grasping Visualizations and Control Modes in a VR Game". In *ACM TAP 18(4)* 2021.

H. Zhang, **Y. Ye**, T. Shiratori, T. Komura. "ManipNet: Neural Manipulation Synthesis with a Hand-Object Spatial Representation". In *ACM SIGGRAPH North America 40(4)* 2021.

Y, Zhou, C. Wu, Z. Li, C. Cao, **Y. Ye**, J. Saragih, H. Li, Y. Sheikh. "Fully Convolutional Mesh Autoencoder Using Efficient Spatially Varying Kernels". In *NeurIPS* 2020.

S. Han, B. Liu, R. Cabezas, C. D. Twigg, P. Zhang, J. Petkau, T. H. Yu, B. Tai, M. Akbay, C. Wan, R. Wang, L. Tao, **Y. Ye**, A. Nitzan, G. Dong, Z. Wang. "MEgATrack: Monochrome Egocentric Articulated Hand-Tracking for Virtual Reality". In *ACM SIGGRAPH North America 39(4)* 2020.

R. Canales, A. Normoyle, Y. Sun, **Y. Ye**, M. Di Luca, S. Jörg. "Virtual Grasping Feedback and Virtual Hand Ownership". In *ACM Symposium on Applied Perception (SAP)* 2019.

L. Lin, N. Normoyle, A. Adkins, Y. Sun, A.Robb, **Y. Ye**, M. Di Luca, S. Jörg. "The Effect of Hand Size and Interaction Modality on the Virtual Hand Illusion". In *IEEE VR* 2019.

A. Sengupta, **Y. Ye**, R. Wang, C. Liu, K. Roy. "Going Deeper in Spiking Neural Networks: VGG and Residual Architectures". In *Frontiers in Neuroscience* 2019.

S. Han, B. Liu, R. Wang, **Y. Ye**, C. D. Twigg, K. Kin. "Online Optical Marker-based Hand Tracking

With Deep Labels". In *ACM SIGGRAPH North America 37(4)* 2018.

D. Zimmermann, S. Coros, **Y. Ye**, R. Sumner, M. Gross. "Hierarchical Planning and Control for Complex Motor Task". In *Symposium on Computer Animation (SCA)* 2015.

H. Li, J. Yu, **Y. Ye**, C. Bregler. "Realtime Facial Animation With On-the-fly Correctives". In *ACM SIGGRAPH North America 32(4)* 2013.

S. Ha, **Y. Ye**, C. K. Liu. "Falling and Landing Motion Control for Character Animation". In *ACM SIGGRAPH Asia 31(5)* 2012.

Y. Ye, C. K. Liu. "Synthesis of Detailed Hand Manipulations Using Contact Sampling". In *ACM SIGGRAPH North America 31(4)* 2012.

Y. Ye, C. K. Liu. "Optimal Feedback Control for Character Animation Using an Abstract Model". In *ACM SIGGRAPH North America 29(4)* 2010.

Y. Ye, C. K. Liu. "Synthesis of Responsive Motion Using a Dynamic Model". In *Computer Graphics Forum (Eurographics) 29(2)* 2010.

S. Jain, **Y. Ye**, C. K. Liu. "Optimization-based Interactive Motion Synthesis". In *ACM Transactions on Graphics (TOG) 28(1)* 2009.

Y. Ye, C. K. Liu. "Animating Responsive Characters With Dynamic Constraints in Near-unactuated Coordinates". In *ACM SIGGRAPH Asia 27(5)* 2008.

PATENTS

Y. Ye, RY. Wang, CD. Twigg, "Hand calibration using single depth camera", 2020, US10803616B1

P. Wu, S. Han, CD. Twigg, RY. Wang, **Y. Ye**, "Passive object tracking using camera", 2020, US10719953B1

S. Han, CD. Twigg, RY. Wang, **Y. Ye**, "Hand tracking using a passive camera system", 2020, US10706584B1

R. Rose, **Y. Ye**, S. Jones, "Animation data transfer between geometric models and associated animation models", 2018, US9858700B2.

KS. Bhat, AR. Goldenthal, **Y. Ye**, R. Mallet, M. Koperwas, "Facial animation models", 2017, US9747716B1.

H. Li, J. Yu, **Y. Ye**, C. Bregler, "Real-time performance capture with on-the-fly correctives", 2016, US9317954B2.

EDUCATION

Georgia Institute of Technology, Ph.D.   August 2007 - December 2011
- "Simulation of Characters with Natural Interactions". Advisor: Dr. C. Karen Liu

University of Southern California, Ph.D. student   August 2006 - May 2007

University of Virginia, M.CS.   August 2004 - May 2006
- "A Momentum-Based Bipedal Balance Controller". Advisor: Dr. David C. Brogan

Peking University, B.S.   September 2000 - June 2004
- "A 2D Vector Graphics Editing System". Advisor: Dr. Guoping Wang

PROFESSIONAL SERVICES

Associate editor for TOG, 2022 - present
Symposium on Computer Animation (SCA) Papers Program Co-Chair 2023
SIGGRAPH Technical Papers 2019 (N.A.), 2020 (N.A.), 2021 (Asia), 2022 (N.A.), 2023 (N.A.)
Symposium on Computer Animation (SCA) Papers 2014, 2015, 2016, 2021, 2022
Symposium on Computer Animation (SCA) Awards 2021, 2022
SIGGRAPH Asia Course 2018, Technical Briefs and Posters 2019
Computer Animation and Social Agents (CASA) Papers 2017, 2018, 2019, 2020, 2021