EDUCATION

Zurich, Switzerland ETH Zurich • Dr.sc. in Computer Science Sep. 2020 - Apr. 2025 Thesis: Efficient Computational Models for Forward and Inverse Elasticity Problems University of Pennsylvania Philadelphia, USA M.S.E in Computer Graphics and Game Technology; GPA: 3.9/4.0 Aug. 2018 - Dec. 2019 Thesis: Hybrid Lagrangian-Eulerian Topology Optimization Beijing University of Technology Beijing, China B.S.E in Software Engineering; GPA: 3.8/4.0 (Ranking 1/62) Sep. 2014 - Jun. 2018 Research Internships Meta Reality Labs Sausalito, U.S.A Research Scientist Intern. Supervisor Dr. Hsiao-vu Chen. and Dr. Ladislav Kavan Sep. 2024 - Jan. 2025 Zurich, Switzerland Machine Learning Intern at the Zurich Vision Lab, Supervisor: Dr. Sebastian Martin May 2024 - Sep. 2024 Max Planck Institute for Informatics Saarbruecken, Germany Visiting Scholar, Supervisor: Prof. Christian Theobalt and Dr. Thabo Beeler Mar. 2020 - Aug. 2020 Disney Research Glendale, U.S.A. Research Intern, Supervisor: Prof. Kenny Mitchell May. 2019 - Aug. 2019 Edinburgh Napier University Remote Research Intern, Supervisor: Prof. Kenny Mitchell Jun. 2018 - Sep. 2018 Megvii Inc.(Face++) Beijing, China Research Intern, Supervisor: Dr. Ligian Ma and Haogiang Fan Jul. 2017 - May 2018

Publications

Yue Li, Gene Wei-Chin Lin, Egor Larionov, Aljaz Bozic, Doug Roble, Ladislav Kavan, Stelian Coros, and Bernhard Thomaszewski, Tuur Stuyck, Hsiao-yu Chen. Self-supervised Learning of Latent Space Dynamics 2025.

Yinwei Du, **Yue Li**, Stelian Coros, and Bernhard Thomaszewski. Robust and Artefact-Free Deformable Contact with Smooth Surface Representations. *Computer graphics forum 43 (8), 2024.*

Yue Li, Logan Numerow, Bernhard Thomaszewski, and Stelian Coros. Differentiable Geodesic Distance for Intrinsic Minimization on Triangle Meshes. ACM Transactions on Graphics (TOG) 43, no. 4 (2024): 1-14.

Logan Numerow, **Yue Li**, Stelian Coros, and Bernhard Thomaszewski. Differentiable Voronoi Diagrams for Simulation of Cell-Based Mechanical Systems *ACM Transactions on Graphics (TOG) 43, no. 4 (2024): 1-11.*

Yue Li, Stelian Coros, and Bernhard Thomaszewski. Neural Metamaterial Networks for Nonlinear Material Design. *ACM Transactions on Graphics (TOG) 42, no. 6 (2023): 1-13.*

Fabian Haller, **Yue Li**, Stelian Coros, and Bernhard Thomaszewski. Graph Neural Networks with Directional Encodings for Anisotropic Elasticity 2023.

Yue Li, Juan Montes, Bernhard Thomaszewski, and Stelian Coros. Programmable Digital Weaves. *IEEE Robotics and Automation Letters (RAL)*, 2022.

Jonas Zehnder, Yue Li, Stelian Coros, and Bernhard Thomaszewski. NTopo: Mesh-free Topology Optimization using Implicit Neural Representations. Advances in Neural Information Processing Systems (Neurips), 34, 2021.

Yue Li, Marc Habermann, Bernhard Thomaszewski, Stelian Coros, Thabo Beeler, and Christian Theobalt. Deep Physics-aware Inference of Cloth Deformation for Monocular Human Performance Capture. In 2021 International Conference on 3D Vision (3DV) (pp. 373-384). IEEE.

Yue Li*, Xuan Li*, Minchen Li*, Yixin Zhu, Bo Zhu, and Chenfanfu Jiang. Lagrangian—Eulerian multidensity topology optimization with the material point method. *Int J Numer Methods Eng. 2021; 1–25.* (* joint first authors)

Llogari Casas, **Yue Li**, and Kenny Mitchell. "FaceMagic: Real-time Facial Detail Effects on Mobile." *In SIGGRAPH Asia 2020 Technical Communications*, pp. 1-4. 2020.

Yue Li, Liqian Ma, Haoqiang Fan, and Kenny Mitchell. "Feature-preserving detailed 3d face reconstruction from a single image." In *Proceedings of the 15th ACM SIGGRAPH European Conference on Visual Media Production*, pp. 1-9. 2018. (Best Paper Award)

Yue Li, Pablo Wiedemann, and Kenny Mitchell. "Deep Precomputed Radiance Transfer for Deformable Objects." Proceedings of the ACM on Computer Graphics and Interactive Techniques 2, no. 1 (2019): 1-16.

Yanlong Tang, Xiaoguang Han, **Yue Li**, Liqian Ma, and Ruofeng Tong. "Expressive facial style transfer for personalized memes mimic." *The Visual Computer 35, no. 6 (2019): 783-795.*

Patents

Kenny Mitchell, Llogari Casas, and **Yue Li**, "Real-time feature preserving rendering of visual effects on an image of a face", US11288859B2.

INVITED TALKS

Efficient Computational Models for Forward and Inverse Elasticity Problems. National University of Singapore (NUS). Host: Prof. Fan Shi. March 24th, 2025

Efficient Computational Models for Forward and Inverse Elasticity Problems. Institute of Science and Technology Austria (ISTA). Computer Graphics Series. Host: Prof. Chris Wojtan. April 10th, 2025

ACADEMIC SERVICE

• Reviewer

ACM Transactions on Graphics 2024,

ACM SIGGRAPH 2023-2025,

ACM SIGGRAPH Asia 2023-2024,

Eurographics 2024,

IEEE Transactions on Visualization and Computer Graphics 2024,

Symposium on Computational Fabrication 2021

• Teaching Assitant

Physics-based Animation *UPenn 2019*,

Visual Computing ETH Zurich 2020-2021,

Computational Models of Motion ETH Zurich 2021-2022,

Physically-Based Simulation in Computer Graphics ETH Zurich 2022-2023,

Introduction to Machine Learning, ETH Zurich 2024,

STUDENT SUPERVISION

• Master Theses at ETH

Mr. Logan Numeral, thesis: Implicit Foam Modelling Using Generalized Voronoi Diagrams. (ETH Medal)

Mr. Christoph Amveror, thesis: A Differentiable Model of Cell Intercalation.

Mr. Fabian Haller, thesis: Graph Neural Networks with Directional Encodings for Anisotropic Elasticity.