Yue Li

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Education

- **ETH Zurich** — Zurich, Switzerland
  Ph.D. in Computer Science — *Sep. 2020 - Apr. 2025 (expected)*

- **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*

Publications

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.*

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.*

Preprints

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

Patents

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

Research Experience

- **Meta Reality Labs** — Sausalito, U.S.A
  Research Scientist Intern, Supervisor: Dr. Hsiao-yu Chen — *Sep. 2024 - Jan. 2025*
- **Apple Inc.** — 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. Liqian Ma, Mr. Haoqiang Fan — *Jul. 2017 - May 2018*

Teaching Assistant

- **CIS563 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

Academic Service

- **Reviewer**
  ACM SIGGRAPH 2023-2024,
  ACM SIGGRAPH Asia 2023-2024,
  Eurographics 2024,
  IEEE Transactions on Visualization and Computer Graphics 2024,
  Symposium on Computational Fabrication 2021

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.

Programming Skills

- **Languages**: C++, Python, Julia, Matlab