WINNIE LIN

EMAIL *winnielin@stanford.edu*
WEBSITE *physbam.stanford.edu/~wl1915*

INTERESTS *Computer Graphics and Vision*
SKILLS *C++, python, lua, OpenCV, pbrt, PyTorch, Tensorflow, Maya, Blender*

EDUCATION

Stanford University

06.2022 (est) Ph.D. Computer Science (4.1)
06.2017 M.S. Computer Science (3.9)
06.2016 B.S. Mathematics (3.8)

INDUSTRY

02.2022-current **Meta Reality Labs**
Deep learning for face tracking
Software Engineer | Burlingame

06.2020-09.2020 **Epic Games**
Deep learning for facial capture
UE Physics Intern | Remote

06.2020-09.2020 **Facebook AR/VR**
Deep learning for face tracking
Research Intern | Menlo Park

06.2018-03.2020 **Industrial Light and Magic**
Data-driven pipelines for visual effects
Associate R&D Engineer | San Francisco

06.2016-09.2016 **Riot Games**
Hydrology System Design
R&D Intern | Mountain View

06.2015-09.2015 **Radiant Entertainment**
Biome and Terrain Generation
Intern #1 | Los Altos

COMMUNITY AND OUTREACH

06.2019 **Stanford Centennial TA Award**
Stanford School of Engineering

07.2018-09.2021 **CA Mentor and Department Liaison**
Stanford CS Department

02.2015-04.2016 **Girls Teaching Girls To Code '15-'16**
Curriculum Writer, Lead Instructor

09.2015-04.2016 **Palo Alto Euler Circle**
Teaching Assistant

09.2015-04.2016 **Stanford University Math Camp**
Residential Teaching Assistant

TEACHING

01.2019-03.2021 **CS205L: Math in Machine Learning**
Head course assistant, Win '19 '20 '21

04.2018-06.2019 **CS231N: Neural Networks for Vision**
Head course assistant, Spr '19
Course assistant, Spr '18

09.2016-12.2018 **CS148: Intro to Graphics**
Course assistant, Fall '16 '18 '20

01.2016-06.2017 **CS109: Intro to Probability**
Course assistant, Win + Spr '15 '16

PROJECTS AND AWARDS

First Author arxiv **Deepfakes in Facial Capture Pipelines**
Developed framework for personalized facial capture with in-the-wild data.

Screen Credits **The Irishman (2019)**
Designed tools for markerless facial capture and data-driven retargeting.

Co-author IEEE TVCG **Real-time Interactive Tree Animation**
Worked on simulation visualization and mathematical verification of the algorithm.

Co-author SCA **3D Reconstruction of Botanical Trees**
Worked on semi-supervised deep learning for video-based 3D reconstruction.

Best Project CS229 **Adaptive Samplers for Raytracing**
[Group of 1.] Worked on using SVMs to train adaptive samplers for pbrt.

First Place CS248 **Trayl, an underwater shooting game**
[Group of 2.] Created UI and assets, added custom acceleration structures to Unity.

Fedkiw Lab **Deformable Geometry Matching**
Experimented with deforming and aligning point clouds to high quality facial meshes.

Guibas Lab **Iterative Point Cloud Superresolution**
Experimented with point cloud upsampling methods through sequential generation.

Vision Lab **Diffusion-based Sparse-to-Dense LIDAR**
Designed and evaluated comparisons for sparse depth completion for sensor fusion.

ME213 **Exploratorium Exhibition Design**
Created prototypes and built installations at the San Francisco Exploratorium.