Tairan Yin

PhD Candidate

PhD student of Inria VirtUs team

CONTACT

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HOBBIES

Photography
Image processing
Reading (in Chinese and French)
Sport: fitness
Travelling: Iceland, France, China, Span, Italie, England

SKILLS

Languages
Chinese : Mother tongue
French : C1(DALF):
English : B2-C1(TOEIC 900/990)

Computer sciences

C#	skilled
C++	skilled
Matlab	skilled
CUDA	skilled
Python	skilled
OpenCV	utilization
OpenGL	utilization

PUBLICATION

T. Yin, L. Hoyet, M. Christie, M. -P. Cani and J. Pettré, "The One-Man-Crowd: Single User Generation of Crowd Motions Using Virtual Reality," in *IEEE Transactions on Visualization and Computer Graphics*, vol. 28, no. 5, pp. 2245-2255, May 2022, doi: 10.1109/TVCG.2022.3150507.

EXPERIENCES

11/2020 - Today

Authoring Dynamic Crowd Scene for Virtual Reality

Inria de l'Université de Rennes, Rennes, France
The goal of this research is to populate virtual scenes by generating realistic behaviors for a group of virtual characters. This includes the generation of trajectories and body motions that present reasonable interactions between characters and environments.
C#, Matlab, and Unity3D

02/2022 – 05/2022

High Precision Motion Capture in Virtual Reality

Max-Planck Institut für Intelligente Systeme, Tübingen, Germany
A 4-month visit at the Perceiving System department. I worked on creating a system that captures human motion directly described by the famous SMPLX model.
C#, Vicon, and Unity3D

11/2018 - 06/2020

3D hand shape alignment and reconstruction from depth images

State Key Laboratory of Virtual Reality Technology and Systems, Beijing, China
Based on the DynamicFusion method, a 3D reconstruction of a moving hand using depth information from a single depth camera. Implementation of TSDF for reconstruction and hand alignment.
Matlab, C ++, Python, OpenCV, OpenGL, etc.

06/2018 - 08/2018

Estimation of curved surfaces from point clouds

Institut Fresnel, Marseille, France
Surface estimation in the situation where a complete sampling cannot be carried out. Development of a new MLS-based method for estimating areas represented by a sparse point cloud.
Matlab

EDUCATION

2016-2018

Ecole Centrale de Marseille, Marseille, France

Double General Engineering Diploma
Courses specialized in computer sciences. Study of Python, C ++ and Keras, also including mathematics, physics, optics, etc.

2013-2016 And 2018-2020

Ecole Centrale de Pékin, Beihang University, Beijing, China

Bachelor of Mathematics (2013-2016)
Sino-French, trilingual intercultural education. French preparatory class, math (algebra, geometry, analysis), physics (mechanics, electronics, optics)
Master of Engineering(2018-2020)
The research is described above.