Nurshat Menglik

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Website: https://nurshat317.github.io/

Gender: Male **Date of birth:** 25 Dec 1998

ABOUT ME

My research interests are about computer graphics and computational physics, more specifically, including VR/AR, parallel computing, physics-based animation and simulation. I got lots of research experience in such areas from some graphic labs. Currently, my research is focusing on physics-based simulation.

*Additional: My official legal name is **Nulixiati Mangnike**, Nurshat Menglik is my preferred name.*

EDUCATION AND TRAINING

[1 Sep 2017 – Current] **B.S.**

Peking University

Address: Beijing, China

Field(s) of study: Computer Science

RESEARCH EXPERIENCE

[1 Oct 2019 – 1 Feb 2020] **VR Agent**

Studying human visual behaviors and designing eye gaze movement behaviors of VR agents.

[1 Jun 2020 – 1 Jan 2021] **Topology and Parallelization**

My research is addressing topology problems in simulation and GPU parallelization, in the PhysIKA team from Graphics Lab at Peking University.

https://github.com/PhysikaTeam/PhysIKA

[1 Jan 2021 – 1 Nov 2021] **Real-time Surface Tension Simulation**

Advised by Prof. Xiaowei He at the Institute of Software, Chinese Academy of Sciences. My research is simulating surface tension of free surface fluids on GPU, which can efficiently interact with complex boundaries.

https://github.com/peridyno/peridyno

[1 Aug 2021 – Current] **Deformable Simulation**

Advised by prof. Joseph M. Teran from UC Davis, I am working on research remotely, which is studying efficient elasticity solver based on Newton's method.

PUBLICATIONS

Semi-Analytical Surface Tension Model for Free Surface Flows

N. Menglik, H. Yao, Y. Zheng, J. Shi, Y. Qiao, X. He

IEEE VR 2022 Conference(in review)

[*Video*] [Paper]

PROJECT EXPERIENCE

Game Designing(Unity, C++, VR, Godot)

3D Modeling(Blender)

Fluid and Deformable Simulation(C++, CUDA, OpenGL, Eigen, Houdini)

SKILLS

Programming and Tools

C/C++, OpenGL, Cuda

Unity, Blender, Houdini, Git, Eigen

Languages

Uyghur(*proficient*), Chinese(*proficient*), English(*fluent*)

Hobbies

Body building, Football, Painting, Cooking, Reading