Xilong(Logan) Zhou

zhouxilong199213@tamu.edu, https://xilongzhou.github.io/.

Education

PhD in Computer Science and Engineering, **TAMU** August, 2018 – Present

MS in Petroleum Engineering, **TAMU** (GPA 4.0/4.0) August, 2014 – August, 2016

BE in Petroleum Engineering, **China University of Petroleum** (GPA 90/100) August, 2010 – June, 2014

Research Interest

I am interested in the application of deep learning technique in computer graphics, especially in material appearance modeling and rendering.

Research Experience

Estimation of Reflectance Properties from multiple images June,2020 – Present

- Propose a novel optimization strategy for SVBRDF estimation from multiple images

Estimation of Reflectance Properties from a single image June,2019 – October, 2020

- Propose a novel adversarial framework using CNN and conditional GAN to estimate the reflectance properties of materials from a single input image
- Propose a hybrid training strategy to address the gap between synthetic and real images
- Paper submitted to Eurographics 2021 (under review)

Study of Adsorption Property of Nanoparticle used in Enhanced Oil Recovery January, 2015 – August, 2016

- Develop a method to study the adsorption of nanoparticles and the bilayer adsorption model of nanoparticles is proposed

Publication

Xilong Zhou, Jenn-Tai Liang, Corbin D Andersen, Jiajia Cai and Ying-Ying Lin. "Enhanced Adsorption of Anionic Surfactants on Negatively Charged Quartz Sand Grains Treated with Cationic Polyelectrolyte Complex Nanoparticles". Colloids and Surfaces A: Physicochemical and Engineering Aspects, 553, 397-405, September 2018.

Teaching

PETE 612: Unconventional Oil and Gas, Teaching Assistant, Fall 2015
PETE 321: Formation Evaluation, Teaching Assistant, Spring 2016
CSCE 222: Discrete Structure for Computing, Teaching Assistant, Fall 2018, Fall 2019, Spring 2020
CSCE 441: Analysis of Algorithm, Teaching Assistant, Summer 2019
CSCE 421: Machine Learning, Teaching Assistant, Fall 2020

Coursework

Computer Graphics, Physically Based Modeling, Image Synthesis, Digital Image, Data Visualization, Deep Learning for Computer Graphics, Computational Photography, Analysis of Algorithm

Honors & Awards

- Student Representative in "Petro Bowl" Contest in ATCE October, 2013
- National First Prize of National Petroleum Engineering Design Competition May, 2013
- Honorable Mention of Mathematical Contest in Modeling (International) April, 2013
- National Second Prize of National Mathematics Modeling Contest September, 2012

Programming Skills

Python, Pytorch, Cuda, C++, Matlab, Mathematica, Javascript

Extra-Curriculum Activities

Volunteer in the International Triathlon World Championship (2011)
Beijing college student art performance (2010)