HAN ZHANG

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EDUCATION

The Chinese University of Hong Kong, Hong Kong

Department of Mathematics

August 2018 - July 2020 Master of Philosophy

Sun Yat-Sen University, Guangzhou

School of Mathematics

August 2014 - June 2018 Bachelor of Science

RESEARCH INTEREST

Computational Geometry

Scientific Computing

Geometry Processing

ACADEMIC EXPERIENCE

The Key Laboratory of Computational Science

of Guangdong Province

Part-Time Research Assistant

September 2016 - April 2018

Guangzhou, CHINA

· Research on medical images supervised by Prof.Ying JIANG. Especially on finding a new approach for CT reconstruction through wavelet basis.

Faculty of Mathematics,

The Chinese University of Hong Kong Research Assistant

August 2018 - July 2020 Hong Kong, CHINA

· Research on computational geometry and deep learning. Supervised by Lok Ming LUI

Department of Computer Science,

Shenzhen University Research Assistant

July 2020 - June 2021 Shenzhen, CHINA

· Research on scene reconstruction and path planning. Work with Hui Huang

Department of Computer Science,

Shenzhen University Research Assistant

July 2021 - Present Hong Kong, CHINA

· Research on scene reconstruction and path planning. Work with Hui Huang

PROJECTS

Quasi-Conformal Network

October 2019 - September 2020 with Lok Ming LUI The Chinese University of Hong Kong

We build a deep neural network based on quasi-conformal theories, called QC-net, to obtain diffeomorphic registration maps between corresponding data. QC-Net incorporates data information from training data. As such, QC-net can output a meaningful registration map based on the known data structure learn from the network.

Continuous Path Planning for Reconstruction

July 2020 - June 2021 Shenzhen University

with Hui HUANG

We introduce the first path-oriented drone trajectory planning algorithm, which performs continuous (i.e., dense) image acquisition along an aerial path and explicitly factors path quality into an optimization along with scene reconstruction quality.

Shape Average and Mean Prior Segmentation

July 2021 - Present

with Lok Ming LUI **TBD**

The Chinese University of Hong Kong

PUBLICATIONS

Continuous Aerial Path Planning for 3D Urban Scene Reconstruction. Han Zhang, Yucong Yao, Ke Xie, Chi-Wing Fu, Hao Zhang, Hui Huang. (Siggraph Asia 2021).

Quasi-Conformal Neural Network (QC-net) with Applications to Shape Matching. Han Zhang (MPhil thesis)

ACADEMIC ACHIEVEMENTS

Excellent Student Scholarship of Sun Yat-Sen University First Class Excellent Thesis of Sun Yat-Sen University Outstanding China Undergraduate Mathematical Contest in Modeling

National High School Mathematics League

Second Prize Second Prize

October 2017

EXTRA-CURRICULAR

Institute of Computing Technology, Chinese Academy of Sciences

July 2017 Outstanding Student of 'Computing Future' summer training class Beijing, CHINA

Department of Mathematics, The Chinese University of Hong Kong Visiting Student

Hong Kong, CHINA

Department of Mathematics, The Chinese University of Hong Kong Teaching Assistant

August 2018 - August 2020 Hong Kong, CHINA

TECHNICAL STRENGTHS

Programming Languages

C++, MATLAB, PYTHON, CGAL...