

ZHIQI CHEN

zc1337@nyu.edu

<https://zhiqi.github.io/>

EDUCATION

New York University, New York

Ph.D. student in Electrical Engineering

Department of Electrical and Computer Engineering

Sept. 2018 - Present

Overall GPA: 3.9

Beijing University of Aeronautics and Astronautics, Beijing

B.S. in Biomedical Engineering

School of Biological Science and Medical Engineering

Sept. 2014 - Jun. 2018

Overall GPA: 3.7

PUBLICATIONS

Zhiqi Chen, Yao Wang, Gadi Wollstein, Maria de los Angeles Ramos-Cadena, Joel S. Schuman, Hiroshi Ishikawa (2020). "Macular GCIPL Thickness Map Prediction via Time-Aware Convolutional LSTM." In 2020 IEEE International Symposium on Biomedical Imaging (ISBI). IEEE, Conference Proceedings, in press.

PROJECTS

Video Interpolation: Warping Toward Middle Frames in Pyramids

Supervisor: Prof. Yao Wang, Video Lab, NYU

- Built a pyramid structure with cost volumes to estimate and refine the optical flows from input frames to the middle frame from coarse to fine.
- Built post-processing networks to handle occlusion and enhance image quality.
- Achieved state-of-the-art performance and submitted a paper to the 2020 European Conference on Computer Vision (ECCV 2020).

Video Prediction through Dynamic Deformable Filter Network

Supervisor: Prof. Yao Wang, Video Lab, NYU

- Built a Dynamic Deformable Filter Network for video prediction combining Dynamic Filter Network and Deformable Convolutional Neural Network.
- The model generated input-specific filter parameters and filter kernel offsets for input frames to synthesize the following frames.
- Experiments demonstrated capability of DDFN to predict movements.

Macular GCIPL Thickness Map Prediction via Time-Aware Convolutional LSTM

Supervisor: Dr. Hiroshi Ishikawa, Advanced Ophthalmic Imaging Laboratory, NYU Langone & Prof. Yao Wang, Video Lab

- Built a Time-Aware Convolutional LSTM to predict next-visit GCIPL thickness maps based on past four visits.
- Added the time gate to LSTM to solve time interval variety.
- Accepted as a paper in 2020 IEEE International Symposium on Biomedical Imaging (ISBI).

TECHNICAL STRENGTHS

Languages

Python (proficient), MATLAB (proficient), JAVA (familiar), C++ (familiar)

Software & Tools

Pytorch, Tensorflow, Git, L^AT_EX