

Yizhou Wang

<http://yizhouwang.net>
 ywang26@uw.edu | 718.406.2623

EDUCATION

UNIVERSITY OF WASHINGTON | PHD IN ELECTRICAL AND COMPUTER ENGINEERING

Expected 2022 | Seattle, WA

Advised by Professor Jenq-Neng Hwang.

Focus areas: Computer Vision, Deep Learning.

COLUMBIA UNIVERSITY | MS IN ELECTRICAL ENGINEERING

Feb 2018 | New York, NY • GPA: 3.83/4.0

Advised by Professor Shih-Fu Chang and Professor Liangliang Cao.

Focus areas: Computer Vision, Deep Learning.

NORTHWESTERN POLYTECHNICAL UNIVERSITY (NPU) | BENG IN AUTOMATION

Jun 2016 | Xi'an, China • GPA: 91/100 (top 5%)

Graduation Commencement Student Speaker • Honors List • Outstanding Bachelor Thesis and Outstanding Graduates •

Outstanding Student and Principal Scholarship (top 0.2%)

RESEARCH EXPERIENCE

INFORMATION PROCESSING LAB | RESEARCH ASSISTANT

Jun 2018 – Present | Seattle, WA

Advised by Prof. Jenq-Neng Hwang.

- Object tracking and 3D position determination for moving cameras.

PROJECT: GIF SUPER-RESOLUTION (SR)

Aug 2017 – Oct 2017 | New York, NY

Advised by Prof. Liangliang Cao.

- Collected a new large GIF SR dataset – “GIFSR” containing 1134 items.
- Proposed a fast algorithm for GIF SR based on Bicubic Interpolation and temporal operator optimization.
- PSNR results of our method on “GIFSR” outperformed some popular video SR baselines like VSRnet, while achieving at least 80 times speedup on CPU and reducing the file size by 70%.

DIGITAL VIDEO AND MULTIMEDIA LAB | RESEARCH ASSISTANT

Feb 2017 – Dec 2017 | New York, NY

Advised by Prof. Shih-Fu Chang.

- Temporal action localization (TAL) in videos: 1) Determining whether a video contains specific actions; 2) Identifying temporal boundaries (start & end time) of each action instance.
- Solved TAL problem using Segment-CNN and CDC Networks, and experimented on THUMOS'14 dataset.
- Demo: developed a web-based visualization demo for Segment-CNN and CDC Networks.

ROBOT SOCCER CENTER @ NPU | PROJECT LEADER & MANAGER

Apr 2013 – Apr 2014 | Xi'an, China

Advised by Prof. Haobin Shi.

- Robot basic action control and optimization, ball prediction, and strategy design.
- Built a robot intelligence system, designed an indoor obstacle avoidance and route planning algorithm using indoor environment modeling.

PUBLICATIONS

- [1] **Demo: Temporal Action Localization in Untrimmed Videos.** Y. Wang, Z. Shou, S.F. Chang. *NYC Media Lab*. Sep 2017.
- [2] **Multi-Objective Planning Method for Multi-Debris Active Removal Mission in LEO.** Y. Liu, J. Yang, Y. HU, M. Zhao, Y. Wang, Q. Pan. *AIAA Guidance, Navigation, and Control Conference*. 2017.
- [3] **Multi-objective optimal preliminary planning of multi-debris active removal mission in LEO.** Y. Liu, J. Yang, Y. Wang, Q. Pan, J. Yuan. *SCIENCE CHINA Information Sciences*. 2016.

- [4] **Multi-objective optimal preliminary planning of multi-debris active removal mission in LEO.** Y. Liu, J. Yang, **Y. Wang**, Q. Pan, J. Yuan. *IEEE Chinese Guidance, Navigation and Control Conference*. 2016.
- [5] **How to Eradicate Ebola.** **Y. Wang**, X. Yang, Y. Zhu, L. Wang. *The Journal of Undergraduate Mathematics and Its Applications*. Sep 2015.

WORK EXPERIENCE

HELLO VERA | SOFTWARE ENGINEER

Mar 2018 – Jun 2018 | New York, NY

Advised by Liangliang Cao and James Fan.

- Developed three new channels - SMS, Hangouts, Slack, for our customer service chat-bot “Vera”.
- Set up Jenkins for unit testing and website monitoring.

ENGINEERED STUDIO | SOFTWARE ENGINEER

Jan 2017 – Feb 2017 | New York, NY

Advised by Omar Kiyani.

- Extracted face image and scene image features using Shearlet Transform and Optical-Flow.
- Generated an Autoencoder Neural Network for face images classification and anti-spoofing.

TEACHING EXPERIENCE

- **Columbia ELEN6886** (Spring 2017): Teaching Assistant for **Deep Learning for Computer Vision, Speech, and Language**. Instructed by: Prof. Liangliang Cao, Xiaodong Cui and Kapil Thadani.

HONORS & AWARDS

- CGNCC **Best Paper Finalist** Award, August 2016.
- Graduation Commencement **Student Speaker** at NPU, June 2016.
- **Honors List** and **Outstanding Graduates** at NPU, June 2016.
- **Outstanding Bachelor Thesis** at NPU, June 2016.
- MCM **Outstanding Winner** Award, April 2015.
- **National Scholarship** (top 2%), October 2014 & October 2015.
- **Outstanding Student** and **Principal Scholarship** at NPU (top 0.2%), October 2014.
- The **Champion** in 2014 FIRA World Cup Simulation 5V5 Group, November 2014.
- The **Champion** in the 5th International Robots Olympic Competition FIRA 5V5 Group, August 2014.

PROFESSIONAL SERVICES

- **Conference Reviewer:** ICME 2018, PAMI 2018, SITIS 2018

SKILLS & LANGUAGES

PROGRAMMING

Python • C • C++ • Matlab • Shell • \LaTeX • Java • JavaScript • HTML • CSS • SQL

DEEP LEARNING FRAMEWORKS

TensorFlow • Caffe • Keras • Theano

TOOLS

MS Office • Adobe Photoshop • Adobe After Effects • SolidWorks

LANGUAGES

English • Chinese