

LIN HUANG

Page: <https://linhuang17.github.io/>

Email: luang27@buffalo.edu

Phone: +1-213-590-1062

EDUCATION

- State University of New York at Buffalo**, Buffalo, USA *Jan. 2019 – Aug. 2023*
Doctorate of Philosophy in Computer Science and Engineering
- Advisor: Prof. Junsong Yuan
- University of Southern California**, Los Angeles, USA *Jan. 2017 - Dec. 2018*
Master of Science in Electrical Engineering GPA: 4.0/4.0
- Masters Students Honors Fellow
- Lanzhou University**, Lanzhou, China *Sep. 2012 - Jun. 2016*
Bachelor of Engineering in Electronic Information Science and Technology GPA: 4.57/5.00
- Outstanding Bachelor Thesis: Blind Per Tone Equalization Using Support Vector Machine for OFDM

WORK EXPERIENCE

- NetEase Games**, Seattle, WA, USA *Oct. 30 2023 - Present*
AI Engineer
- Microsoft Azure AI**, Redmond, WA, USA *May. 31 2022 - Aug. 19 2022*
Research Intern
- Supervisor: Dr. Chung-Ching Lin, Dr. Kevin Lin, Dr. Lin Liang, Dr. Lijuan Wang, Dr. Zicheng Liu
- 3D Hand Pose Estimation (**NVF[CVPR'23]**): Proposed the first 3D implicit representation-based unified solution to estimate camera-space 3D hand pose and noticeably outperforms existing methods for both absolute and relative hand pose estimation.
- Reality Labs at Meta**, Redmond, WA, USA *Dec. 21 2021 - Apr. 01 2022*
Part-Time Student Researcher
- Supervisor: Dr. Tomas Hodan
- Interaction Tracking (**NCF[ECCV'22]**): Proposed the first formulation using 3D implicit representation for 6D rigid object pose estimation given a single RGB image and noticeably outperforms existing methods especially in challenging cases with occlusion.
- Reality Labs at Meta**, Redmond, WA, USA *Aug. 30 2021 - Dec. 20 2021*
Research Intern
- Supervisor: Dr. Tomas Hodan
- Interaction Tracking
- Y-tech Lab at Kwai**, Seattle, WA, USA *May. 18 2020 - Aug. 11 2020*
Research Intern
- Supervisor: Dr. Jianchao Tan, Dr. Ji Liu
- 3D Pose Estimation (**Hand-Transformer[ECCV'20]**, **HOT-Net[MM'20]**): Proposed the very first model to connect the structured hand(-object) pose estimation tasks with the Transformer-based transduction frameworks in the NLP field.

SELECTED PUBLICATIONS

1. **Lin Huang**, Chung-Ching Lin, Kevin Lin, Lin Liang, Lijuan Wang, Junsong Yuan, and Zicheng Liu
Neural Voting Field for Camera-Space 3D Hand Pose Estimation
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) 2023, Vancouver

2. *Jiyang Li, **Lin Huang**, Siddharth Shah, Sean J Jones, Yincheng Jin, Dingran Wang, Adam Russell, Seokmin Choi, Yang Gao, Junsong Yuan, and Zhanpeng Jin*
SignRing: Continuous American Sign Language Recognition Using IMU Rings and Virtual IMU Data
ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 2023
3. ***Lin Huang**, Tomas Hodan, Lingni Ma, Linguang Zhang, Luan Tran, Christopher Twigg, Po-Chen Wu, Junsong Yuan, Cem Keskin, and Robert Wang*
Neural Correspondence Field for Object Pose Estimation
European Conference on Computer Vision (ECCV) 2022, Tel-Aviv
4. ***Lin Huang**^{*}, Boshen Zhang^{*}, Zhilin Guo^{*}, Yang Xiao, Zhiguo Cao, and Junsong Yuan*
Survey on Depth and RGB Image-based 3D Hand Shape and Pose Estimation
Virtual Reality and Intelligent Hardware (VRIH) 2021
5. ***Lin Huang**, Jianchao Tan, Jingjing Meng, Ji Liu, and Junsong Yuan*
HOT-Net: Non-Autoregressive Transformer for 3D Hand-Object Pose Estimation
ACM International Conference on Multimedia (ACM MM) 2020, Seattle
6. ***Lin Huang**, Jianchao Tan, Ji Liu, and Junsong Yuan*
Hand-Transformer: Non-Autoregressive Structured Modeling for 3D Hand Pose Estimation
European Conference on Computer Vision (ECCV) 2020, Glasgow
7. *Yujun Cai, **Lin Huang**, Yiwei Wang, Tat-Jen Cham, Jianfei Cai, Junsong Yuan, Jun Liu, Xu Yang, Yiheng Zhu, Xiaohui Shen, Ding Liu, Jing Liu, and Nadia Magnenat Thalmann*
Learning Progressive Joint Propagation for Human Motion Prediction
European Conference on Computer Vision (ECCV) 2020, Glasgow

CONTESTS

National Undergraduate Electronic Design Contest, China

Summer 2015

Group Leader

- Wireless Video Communication Network
- The Second Prize of National Undergraduate Electronic Design Contest

PROFESSIONAL SERVICES

Conference Reviewer

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) *2021'22'23'24*
- European Conference on Computer Vision (ECCV) *2022'24*
- International Conference on Computer Vision (ICCV) *2021'23*
- IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) *2024*
- IEEE International Conference on Image Processing (ICIP) *2022'23'24*
- IEEE World Forum on Internet of Things (WF-IOT) *2020*

Journal Reviewer

- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- IEEE Transactions on Instrumentation Measurement (TIM)
- The Visual Computer (TVCI)
- Journal of Visual Communication and Image Representation (JVCI)
- Machine Vision and Applications (MVAP)
- Signal Processing: Image Communication (SPIC)

TEACHING

| | |
|---------------------------------------------------------------------|--------------------|
| Teaching Assistant , State University of New York at Buffalo | |
| - CSE531: Analysis of Algorithms I | <i>Spring 2023</i> |
| - CSE191: Introduction to Discrete Structures | <i>Spring 2021</i> |
| - CSE555: Introduction to Pattern Recognition | <i>Fall 2020</i> |
| - CSE587: Data Intensive Computing | <i>Spring 2020</i> |

HONORS & AWARDS

| | |
|---------------------------------------------------------------------------|----------------|
| Masters Students Honors Fellow , USC Viterbi School of Engineering | <i>2018</i> |
| Outstanding Graduate , Lanzhou University | <i>2016</i> |
| Pacemaker to Merit Student , Lanzhou University | <i>2013'14</i> |
| First-class Scholarship , Lanzhou University | <i>2014</i> |
| Second-class Scholarship , Lanzhou University | <i>2012'13</i> |