Ziyi Liu

CLVR Lab, RESL Lab
Computer Science Department, USC

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EDUCATION

University of Calgary, Alberta, Canada   Sept. 2020 - Oct. 2022
M.Sc. in Electrical Engineering, GPA: 3.85/4.0

Zhejiang University of Technology, Zhejiang, China   Sept. 2016 - Jun. 2020
B.S. in Computer Science, GPA: 3.72/5.0 **(top 5%)**

RESEARCH EXPERIENCE

RESL Lab, University of Southern California   Sep. 2023 - Present
Visiting Researcher with Prof. Gaurav Sukhatme
- Research in few-shot imitation learning via employing multi-task datasets for knowledge transfer

CLVR Lab, University of Southern California   Nov. 2022 - Oct. 2023
Visiting Researcher with Prof. Joseph J. Lim
- Research in automated long-horizon task learning in robotics guided by large language models

I2Sense Lab, University of Calgary   Sept. 2020 - Oct. 2022
Research Assistant with Prof. Orly Yadid-Pecht
- Research in lightweight neural networks for extreme dual-exposure image fusion

I2Sense Lab, University of Calgary   Apr. 2019 - Apr. 2020
Visiting Undergraduate Researcher with Prof. Orly Yadid-Pecht
- Research in image tone mapping through a reformulated laplacian neural network

PUBLICATIONS

[C1] Jesse Zhang, Jiahui Zhang, Karl Pertsch, **Ziyi Liu**, Xiang Ren, Minsuk Chang, Shao-Hua Sun, and Joseph J Lim. "Bootstrap Your Own Skills: Learning to Solve New Tasks with Large Language Model Guidance", *Oral at CoRL 2023 (top 6.6%). Spotlight at Articulate Robots Workshop at RSS 2023*, 2023

PREPRINTS

[P5] **Ziyi Liu**, Jie Yang, Svetlana Yanushkevich, and Orly Yadid-Pecht. "LightFuse: Lightweight CNN based Dual-exposure Fusion", *ArXiv Preprint*, 2021

[P4] **Ziyi Liu**, Jie Yang, Mengchen Lin, Kenneth Kam Fai Lai, Svetlana Yanushkevich, and Orly Yadid-Pecht. "WDR FACE: The First Database for Studying Face Detection in Wide Dynamic Range", *ArXiv Preprint*, 2020

[P3] Jie Yang, **Ziyi Liu**, Mengchen Lin, Svetlana Yanushkevich, and Orly Yadid-Pecht. "Deep reformulated Laplacian tone mapping", *ArXiv Preprint*, 2019

[P2] Jie Yang, **Ziyi Liu**, Ulian Shahnovich, and Orly Yadid-Pecht. "Tone Mapping Based on Multi-scale Histogram Synthesis", *ArXiv Preprint*, 2019

[P1] Jie Yang, Mengchen Lin, **Ziyi Liu**, Ulian Shahnovich, and Orly Yadid-Pecht. "Mobile-end Tone Mapping based on Integral Image and Integral Histogram", *ArXiv Preprint*, 2019

HONORS AND AWARDS

- International Graduate Tuition Award   Oct. 2021
- Graduate Fellowship   Sep. 2020
- Mitacs Globalink Research Scholarship   Jan. 2019
- Third Prize of **Coding Competition** of Zhejiang University of Technology   Mar. 2018
- Zhejiang **Provincial Government** Scholarship **(top 3%)**   Nov. 2017

LEADERSHIP AND ACTIVITIES

- Student Volunteer, **CoRL 2023**   Nov. 2023
- Operator, From Lab 2 Fulfillment   Sep. 2020 - Oct. 2022
- Volunteer, Women in Science and Engineering   Sep. 2019
- Team Leader, ACM China Collegiate Programming Contest   Oct. 2018

COMPUTER SKILLS

Programming Languages: Python, TensorFlow, Keras, PyTorch, C/C++, Java, SQL, MATLAB, C#

SDKs & Tools: PyCharm, Eclipse, Visual Studio, Git, Linux Shell, .Net, Vivado