JINGPEI LU

jingpeilu.github.io

EDUCATION

University of California San Diego, CA, USA

Ph.D. in Electrical and Computer Engineering — 2021 -
Area of focus: Computer Vision and Robotics

M.S. in Electrical and Computer Engineering — 2020
Area of focus: Intelligent System, Robotics and Control

B.S. in Electrical and Computer Engineering — 2018
Area of focus: Machine Learning

FIELD OF INTERESTS

Robotic Perception; Machine Learning; State Estimation; Surgical Robotics

PUBLICATIONS

F. Richter, **J. Lu**, R. K. Orosco, M.C. Yip, "Robotic Tool Tracking under Partially Visible Kinematic Chain: A Unified Approach," *IEEE Transactions on Robotics*, 2021.

J. Lu, F. Richter and M. C. Yip, "Pose Estimation for Robot Manipulators via Keypoint Optimization and Sim-to-Real Transfer," arXiv:2010.08054, 2020.

F. Liu, Z. Li, Y. Han, **J. Lu**, F. Richter, M. C. Yip, "Real-to-Sim Registration of Deformable Soft Tissue with Position-Based Dynamics for Surgical Robot Autonomy," in *IEEE Conference on Robotics and Automation* (ICRA), 2021.

J. Lu, A. Jayakumari, F. Richter, Y. Li and M. C. Yip, "SuPer Deep: A Surgical Perception Framework for Robotic Tissue Manipulation using Deep Learning for Feature Extraction," in *IEEE Conference on Robotics and Automation* (ICRA), 2021.

Y. Li, F. Richter, **J. Lu**, E. K. Funk, R. K. Orosco, J. Zhu and M. C. Yip, "SuPer: A Surgical Perception Framework for Endoscopic Tissue Manipulation with Surgical Robotics," in *IEEE Robotics and Automation Letters* (RA-L), vol. 5, no. 2, pp. 2294-2301, April 2020.

TEACHING EXPERIENCE

University of California, San Diego — January 2019 - December 2019
Teaching Assistant, Jacob School of Engineering

· Course: Introduction to Digital Design

PROFESSIONAL EXPERIENCE

Educational Vision Technologies, Inc. — July 2019 - December 2019
Machine Learning Engineer — *La Jolla, CA, USA*

· Developed and maintained several key functions of the learning platform, including automated slides video segmentation, student face blurring and speech recognition
· Mentored and supported interns on Machine Learning projects
· Built the testing frameworks to ensure the algorithms function properly on NVIDIA Jetson TX2

TECHNICAL SKILLS

Programming	Python, C/C++, Matlab, Cuda
Tools	Tensorflow, Pytorch, ROS, Git, Docker, LaTeX
Language	Proficient in English and Chinese

SERVICES

Reviewer	IEEE Robotics and Automation Letters
Mentor	Engineering Group Design Project (ECE 191)