

Curriculum Vitae

Li Yong, Ph.D.

✉ yongli.cv@gmail.com ☎ +86-15072423262
🌐 <http://www.github.com/yongleex>
📄 <https://scholar.google.com/citations?user=AtCgZMcAAAAJ&hl=en>
👤 Male 📅 Oct 1988 (date of birth) ❤️ Married



Employment History

- 2019 – 2020 📌 **Research Fellow.** Department of Computer Science, School of Computing, National University of Singapore, Singapore. Under the guidance of Assistant Prof. **Harold Soh.**
- 2018 – 2019 📌 **Algorithm Scientist.** Wuhan Cobot Technology Co., Ltd., Wuhan.

Education

- 2012 – 2018 📌 **Ph.D., Huazhong University of Science and Technology** Mechatronic Engineering. Thesis title: *Deep Learning Based Particle Image Velocimetry Technology and Its Application.* Supervisor: Prof. **Xiong Youlun**, and Prof. **Yang Hua**
- 2008 – 2012 📌 **B.Sc., Huazhong University of Science and Technology** in Mechanical Design manufacture and Automation Major. Thesis title: *Phase Unwrapping Methods for Structured Light 3D profilometry.*

Research Interests

- 📌 Image based control: Model predictive control, reinforcement learning, learning dynamics to collaborative policy.
- 📌 Machine learning, image processing, optimal control, probabilistic graphical models, etc.
- 📌 Particle image velocimetry (PIV), structure light profilometry, defect inspection, robot learning, etc.

Research Publications

Journal Articles

- 1 Chen, K., Lee, Y., & Soh, H. (2021). Multi-modal mutual information (mummi) training for robust self-supervised deep reinforcement learning. *IEEE International Conference on Robotics and Automation (ICRA)*. 🌐 <https://arxiv.org/abs/2107.02339>
- 2 Lee, Y., Fuqiang, G., & Zeyu, G. (2021). Surrogate-based cross-correlation for particle image velocimetry. *IEEE Transactions on Signal Processing, under review.*
- 3 Lee, Y., & Mei, S. (2021). Diffeomorphic particle image velocimetry. *IEEE Transactions on Instrumentation and Measurement*. 🌐 <https://doi.org/10.1109/tim.2021.3132999>
- 4 Lee, Y., Zhang, S., Li, M., & He, X. (2021). Blind inverse gamma correction with maximized differential entropy. *Signal Processing*, 108427. 🌐 <https://doi.org/https://doi.org/10.1016/j.sigpro.2021.108427>
- 5 Lee, Y., Yang, H., & Yin, Z. (2017a). PIV-DCNN: Cascaded deep convolutional neural networks for particle image velocimetry. *Experiments in Fluids*, 58(12). 🌐 <https://doi.org/10.1007/s00348-017-2456-1>

- 6 **Lee, Y.,** Yang, H., & Yin, Z. (2017b). Outlier detection for particle image velocimetry data using a locally estimated noise variance. *Measurement Science and Technology*, 28(3), 035301.
<https://doi.org/10.1088/1361-6501/aa5431>
- 7 **Lee, Y.,** Yang, H., & Yin, Z. (2017c). Convolutional neural networks to measure the velocity gradients of particle image pairs. *The 12th International Symposium on Particle Image Velocimetry*, (ISPIV-128).
- 8 Yang, H., Chen, L., Chen, Y., **Lee, Y.,** & Yin, Z. (2016). Automatic barcode recognition method based on adaptive edge detection and a mapping model. *Journal of Electronic Imaging*, 25(5), 053019.
<https://doi.org/10.1117/1.jei.25.5.053019>

Skills

Modeling and Analysis	📌	Inventor(***), CATIA(**), AutoCAD(*), Ansys(*), etc.
Software & Tools	📌	MS Office(***), L ^A T _E X(***), Origin(*), etc.
Coding	📌	Matlab(***), Python(***), C/C++(**), etc.
Software Package	📌	OpenCV(***), Pytorch(***), Caffe(*), etc.

Miscellaneous Experience

Certification

- 2013 📌 **Certified Level 6 in College English Test.** Awarded by Higher Education Department, Ministry of Education.
- 2011 📌 **Certified Level 4 (Web) in National Computer Rank Examination.** Awarded by National Education Examinations Authority, Ministry of Education.
- 2010 📌 **Certified Level 2 (C/C++) in National Computer Rank Examination.** Awarded by National Education Examinations Authority, Ministry of Education.

Awards and Achievements

- 2013 📌 **Merit Graduate Student**, Huazhong University of Science and Technology.
- 2011 📌 **National Encouragement Scholarship**, Department of Education of Hubei Province.
- 📌 **Second Prize**, National Undergraduate Mechanical Product Digital Design Competition.
- 2010 📌 **Excellent Party Member Award**, Huazhong University of Science and Technology.
- 📌 **Third Prize**, National Undergraduate Mechanical Innovation Design Competition (Hubei Area).