

ANGELA YAO

School of Computing
National University of Singapore
13 Computing Drive, Singapore 117417
yaoa@comp.nus.edu.sg

RESEARCH INTERESTS

video understanding, 3D pose estimation, activity recognition
sequence & time series modelling, deep learning

EDUCATION

- 2008 - 2012 PhD, ETH Zurich
Advisor: Prof. Dr. Luc Van Gool
Thesis: Vision-based human motion analysis
- 2006 - 2008 MSc Biomedical Engineering, ETH Zurich
2001 - 2006 BSc Engineering Science, University of Toronto

ACADEMIC EXPERIENCE

- 10.2018 - present Assistant Professor, National University of Singapore, Singapore
Dept. of Computer Science, School of Computing
- 01.2015 - 09.2018 Assistant Professor (W1), University of Bonn, Germany
Head of Visual Computing Group, Informatik II
- 03 - 07.2012 Research Intern, Microsoft Research Cambridge, UK
- 08 - 12.2010 Research Intern, Toyota Technology Institute at Chicago, USA

INDUSTRY EXPERIENCE

- 01.2015 - present Board advisor, Parquery AG, Zurich, Switzerland
08.2012 - 12.2014 CTO & Co-Founder
Spin-off, offering a computer-vision solution for determining parking occupancy.
- 09.2003 - 08.2004 Engineering Intern, Honeywell Aerospace, Mississauga, Canada

AWARDS & SCHOLARSHIPS

- 2019 NRF Fellowship for Artificial Intelligence
Singapore National Research Foundation
- 2018 German Pattern Recognition Award
German Association for Pattern Recognition (DAGM)
- 2013 - 2014 Pioneer Fellowship
ETH Zurich
- 2009 - 2012 NSERC Postgraduate Scholarship - Doctoral (PGS D)
Natural Sciences and Engineering Research Council of Canada

ADVISED DOCTORAL STUDENTS

Defended Doctoral Students

06.2015 - 06.2019 Chengde Wan (jointly supervised with L. Van Gool at ETH Zurich)
Thesis: Towards Accurate and Data-Efficient 3D Hand Pose Estimation Algorithms

01.2015 - 12.2017 Jun Li (jointly supervised with R. Klein at Uni. of Bonn)
Thesis: Fine-Scaled 3D Geometry Recovery from Single RGB Images

Current Doctoral Students

2020 - present Kerui Ge, Qiuxia Lin, Rongyu Chen, Bo Ji, Yuehan Zhang

2019 - present Huiqi Mao, Ziwei Yu, Dipika Singhania

2018 - present Linlin Yang

2017 - present Moritz Wolter

2015 - present Fadime Sener, Soumajit Majumder

TEACHING

National University of Singapore

Neural Networks & Deep Learning S2 2019/20
CS 5242, graduate lecture, 132 students

Computer Vision & Pattern Recognition S1 19/20, 20/21
CS 4243, undergraduate lecture, 104 students / 188 students

Advanced Topics in Machine Learning S2 2018/19
CS 6212, graduate seminar, 30 students

University of Bonn

Probabilistic Graphical Models 2015 - 2017
MA-INF 4315, graduate lecture, 15-20 students, taught 3 times

MRFs for Vision & Graphics 2016 - 2018
MA-INF 2117, graduate lecture, 10-15 students, taught 3 times

Deep Learning for Visual Recognition 2016 - 2017
MA-INF 2313, graduate lecture, 25-30 students, taught twice

SERVICE

Program Chair or Organizer

Seminar on Geometry Processing and 3D Computer Vision (3DGV) 2020-21

Workshop on Observing & Understanding Hands in Action at ECCV, ICCV 2018, 2019

International Symposium on Vision, Modelling, and Visualization (VMV) 2017

Area Chair

International Conference on Machine Learning (ICML) 2021

International Conference on Computer Vision (ICCV) 2021

IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2021

International Conference on Learning Representations (ICLR) 2021

International Joint Conferences on Artificial Intelligence (IJCAI) 2021

Neural Information Processing Systems (NeurIPS) 2019 - 2020

SELECT TALKS

UESTC Data Intelligence Group <i>University of Electronic Science and Technology of China</i>	25.03.2020 virtual
Graphics & Vision Lab Seminar <i>Simon Fraser University</i>	06.12.2019 Vancouver, Canada
BMVA Symposium on Video Understanding <i>British Machine Vision Association</i>	25.09.2019 London, UK
Workshop on Observing & Understanding Hands in Action <i>ICCV Workshop</i>	28.10.2019 Seoul, Korea
CS Research Week <i>National University of Singapore</i>	05.08.2019 Singapore
German Conference for Pattern Recognition <i>German Pattern Recognition Award Talk</i>	10.10.2018 Stuttgart, Germany
Dagstuhl Seminar: Holistic Scene Understanding <i>Seminar 15081</i>	17.02.2015 Wadern, Germany

SELECT RECENT PUBLICATIONS

My name in **bold**, supervised students underlined.

- F. Sener, D. Singhania and **A. Yao**. “Temporal aggregate representations for long range video understanding”, *ECCV* 2020.
- C. Wan, T. Probst, L. Van Gool and **A. Yao**. “Dual Grid Net: Hand mesh vertex regression from single depth maps”, *ECCV* 2020.
- J. Li, C. Yuce, R. Klein and **A. Yao**. “A two-streamed network for estimating fine-scaled depth maps from single RGB images”, *CVIU*, 186:25-36, 2019.
- F. Sener and **A. Yao**. “Zero-shot anticipation for instructional activities”, *ICCV* 2019.
- S. Majumder and **A. Yao**. “Scale-aware multi-level guidance for interactive instance segmentation”, *CVPR* 2019.
- C. Wan, T. Probst, L. Van Gool and **A. Yao**. “Self-supervised 3D hand pose estimation through training by fitting” (oral), *CVPR* 2019.
- L. Yang and **A. Yao**. “Disentangling latent hands for image synthesis and pose estimation”, *CVPR* 2019.
- M. Wolter and **A. Yao**. “Gated complex recurrent neural networks”, *NeurIPS* 2018.
- F. Sener and **A. Yao**. “Unsupervised discovery and segmentation of complex activities” (spotlight), *CVPR* 2018.