Cedric Scheerlinck

PhD Candidate

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EDUCATION

2017 – 2020 **PhD candidate, Australian National University & Australian Centre for Robotic Vision**
12 months at the University of Zurich & ETH.

2015 – 2016 **Masters of Mechanical Engineering, The University of Melbourne**
Weighted Average Mark: 87% (H1), exchange semester ETH Zurich (2015) grade: 4.95, Dean's Honours List (top 5%).

2012 – 2014 **Bachelor of Science, The University of Melbourne**
Weighted Average Mark: 84% (H1), Dean's Honours List.

RESEARCH

2017 – 2020 **PhD Candidate, ANU & ACRV**
Supervisors: Prof. Robert Mahony, A/Prof. Nicholas Barnes, Prof. Tom Drummond.
Continuous-time robotic vision with event cameras.

2018 – 2019 **Research Visit, RPG, University of Zurich & ETH**
Supervisors: Prof. Davide Scaramuzza, Dr. Guillermo Gallego.
Image reconstruction, optical flow and deep learning with event cameras.

2016 **Masters Thesis, The University of Melbourne**
Supervisors: Prof. Andrew Ooi, Prof. Peter Barlis, Dr. Eric Poon.
Computational fluid dynamics on 3D reconstructed coronary arteries.

2015 **Semester Project (Masters), ETH Zurich**
Supervisors: Prof. Thomas Rösgen, Dr. Lukas Prochazka.
Flow visualization in porous media using thermal imaging.

EMPLOYMENT

2020 **Producer/Director, Finding X**
Screen Australia Skip Ahead IV

2017 – 2018 **Teaching Assistant, The Australian National University**
Courses: ENGN4200, ENGN4221, ENGN8170.

2016 **Teaching Assistant, The University of Melbourne**
Course: MCEN30014.

2015 **Research Assistant, The University of Melbourne**
Supervisors: Prof. Ivan Marusic, Dr. Jimmy Philip.
Building an oscillating grid to generate isotropic turbulence.

2011 – 2016 **Tutor, Self-Employed**
Mathematics, Physics, Chemistry, Biology

AWARDS

2018 – 2019	Swiss Government Excellence Scholarship
2018	Research to Impact (CBR Innovation Network)
2017 – 2020	Australian Government Research Training Program Scholarship
2017 – 2020	Postgraduate Research Scholarship (Australian Centre for Robotic Vision)
2015 – 2016	Dean's Honours List (top 5%) (Melbourne University School of Engineering)
2015	Melbourne Global Scholars Award (University of Melbourne - ETH Zürich)
2014	Dean's Honours List, Bachelor of Science (University of Melbourne)

PROJECTS

2020	High Quality Frames Dataset https://cedricscheerlinck.com/20ecnn
2019	Event Camera Wikipedia page https://en.wikipedia.org/wiki/Event_camera
2019	Color Event Camera Dataset http://rpg.ifi.uzh.ch/CED.html
2018	DVS Image Reconstruction (open-source C++ project) https://github.com/cedric-scheerlinck/dvs_image_reconstruction

MISC.

2017	Associate Fellowship of the Higher Education Academy (AFHEA)
2017	Principles of Tutoring and Demonstrating, ANU
2014	Education Officer, Melbourne University Mechatronics Society
2012 - 2014	President/treasurer Melbourne University Chocolate Lovers Society
2009	Associate in Music, Australia (piano) (AMusA)

PUBLICATIONS https://cedricscheerlinck.com/publications

1. Z. Wang, Y. Ng, C. Scheerlinck, R. Mahony, “An Asynchronous Kalman Filter for Hybrid Event Cameras”, arXiv, December 2020.
2. L. Pan, R. Hartley, C. Scheerlinck, M. Liu, X. Yu, Y. Dai, “High Frame Rate Video Reconstruction based on an Event Camera”, IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), November 2020.
3. T. Stoffregen*, C. Scheerlinck*, D. Scaramuzza, T. Drummond, N. Barnes, L. Kleeman, R. Mahony, “Reducing the Sim-to-Real Gap for Event Cameras”, European Conference on Computer Vision (ECCV), 2020.
4. C. Scheerlinck, H. Rebecq, D. Gehrig, N. Barnes, R. Mahony, D. Scaramuzza, “Fast Image Reconstruction with an Event Camera”, Winter Conference on Applications of Computer Vision (WACV), 2020.
5. C. Scheerlinck*, H. Rebecq*, T. Stoffregen, N. Barnes, R. Mahony, D. Scaramuzza, “CED: Color Event Camera Dataset”, Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), 2019.
6. L. Pan, C. Scheerlinck, X. Yu, R. Hartley, M. Liu, Y. Dai, “Bringing a Blurry Frame Alive at High Frame-Rate with an Event Camera”, Conference on Computer Vision and Pattern Recognition (CVPR), 2019. [**Oral** accept. rate 6%]
7. C. Scheerlinck, N. Barnes, R. Mahony, "Asynchronous Spatial Image Convolutions for Event Cameras", IEEE Robotics and Automation Letters (RAL), 4(2), April 2019, pp. 816-822. [Also presented at IEEE International Conference on Robotics and Automation (ICRA), 2019.]
8. C. Scheerlinck, N. Barnes, R. Mahony, “Continuous-time Intensity Estimation Using Event Cameras”, Asian Conference on Computer Vision (ACCV), Perth, 2018, pp.308-324.
9. C. Scheerlinck, C. Mamon, T. Zahtila, W. Nguyen, E. Poon, V. Thondapu, C. Chin, S. Moore, P. Barlis, & A. Ooi, “Effect of Medical Imaging Modalities on the simulated blood flow through a 3D reconstructed stented coronary artery segment”, 20th Australasian Fluid Mechanics Conference (AFMC), Perth, 2016.

*Equal contribution.