



Cedric Scheerlinck

PhD Candidate

Web: <https://cedricscheerlinck.com>





Google Scholar: <https://scholar.google.com.au/citations?user=UU0QI2wAAAAJ>

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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.
-  **Australian National University**
- 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.
-  **University of Zurich**
- 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.
-  **THE UNIVERSITY OF MELBOURNE**
- 2015 **Semester Project (Masters), ETH Zurich**
Supervisors: Prof. Thomas Rösgen, Dr. Lukas Prochazka.
Flow visualization in porous media using thermal imaging.
-  **ETH zürich**

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)

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.

PROJECTS

- 2020 High Quality Frames Event Camera 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)