



## Tom Runia

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## Education

- 2016 – **Ph.D. in Computer Science**, University of Amsterdam  
Computer Vision and Machine Learning in QUVA Deep Vision Lab  
Advisors: Cees G.M. Snoek and Arnold W.M. Smeulders
- 2013 – 2015 **M.S. in Computer Science**, Delft University of Technology  
Graduated with distinction, GPA 8.5/10
- 2008 – 2012 **B.S. in Applied Physics**, Delft University of Technology

## Employment

- 2019 – **Research Intern**, Amazon  
Computer Vision at Amazon AI (AWS Rekognition)
- 2014 – 2015 **Research Intern**, TomTom Automotive  
Computer Vision in the Autonomous Driving team
- 2013 – 2015 **Software Engineer**, Dept Agency  
Back-end developer in the Operational Services team
- 2012 – 2013 **Research Assistant**, Delft University of Technology  
Scientific programmer in the Quantitative Imaging group
- 2009 – 2010 **Software Engineer**, Innovative Design Delft  
Back-end developer

## Publications

- 2019 **T.F.H. Runia**, K. Gavrilyuk, C.G.M. Snoek and A.W.M. Smeulders. Go with the Flow: Perception-refined Physics Simulation (Under Review)
- 2018 R. Wever, **T.F.H. Runia**, Subitizing with Variational Autoencoders. In *European Conference on Computer Vision Workshops (ECCV-W)*

- 2018 **T.F.H. Runia**, C.G.M. Snoek and A.W.M. Smeulders. Repetition Estimation. *International Journal of Computer Vision (IJCV)*.
- 2018 **T.F.H. Runia**, C.G.M. Snoek and A.W.M. Smeulders. Real-World Repetition Estimation by Div, Grad and Curl. In *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. (Spotlight presentation)
- 2018 **T.F.H. Runia**, C.G.M. Snoek and A.W.M. Smeulders. Primitive Motion Types for Learning from Instructional Video. In *The Fine-Grained Instructional Video Understanding Workshop (CVPR-W)*.
- 2015 **T.F.H. Runia**, R. Lukassen, L. Zhang and M Loog. The System Design of a High-Speed Object Detector. In *The Dutch Conference on Computer Vision (NCCV)*.

## Awards and Grants

- 2016 **e-COST Travel Grant** for the Summer School "Vision and Language" European Cooperation in Science and Technology
- 2015 **Ngi-NGN Award** for best M.S. Thesis in Computer Science (€1.000) The Royal Holland Society of Science and Humanities

## Invited Talks

- 2018 **Dutch National Police**, Deep Learning Meet-Up

## Workshops and Summer Schools

- 2017 **International Computer Vision Summer School** (Catania, Italy) Summer school participation
- 2016 **iV&L Summer School** on Vision and Language (Msida, Malta) Summer school participation; Selected for poster presentation

## Teaching

- 2016 – **Thesis supervision** for B.S. and M.S. students in Artificial Intelligence University of Amsterdam
- 2017 – 2018 Teaching Assistant: **Deep Learning** Graduate course at the University of Amsterdam
- 2016 Teaching Assistant: **Information Visualization** Undergraduate course at the University of Amsterdam

## Professional Service

- 2018 Conference reviewing: CVPR, NIPS, ECCV, BMVC
- 2017 Conference reviewing: CVPR, NIPS, ICCV, PAMI
- 2016 Conference reviewing: CVPR, NIPS, ECCV, ACM-MM

## Extracurricular Activities

- 2014 **Entrepreneurial Study Trip** to Silicon Valley (funded by TU Delft)
- 2012 – 2013 **Board Member**, Study Association for Applied Physics
- 2009 – 2012 **President**, Electronic Committee, Study Assoc. for Applied Physics
- 2010 **Editor in Chief**, Magazine for Applied Physics at the TU Delft

## Technical Expertise

- **Programming languages.** C++, Python, Java, C#, R, Lua, Matlab, JavaScript
- **Deep learning frameworks.** TensorFlow, PyTorch, Caffe, Theano, Keras
- **Scientific software.** OpenCV, CUDA, OpenCL, LaTeX
- **Miscellaneous.** 3D rendering and animation (Blender, Autodesk 3ds Max)