

Tom Runia

Updated: November, 2019

PhD candidate, QUVA Deep Vision Lab
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Education

University of Amsterdam

PhD candidate in Computer Science

Advisors: Cees Snoek, Arnold Smeulders

Amsterdam, The Netherlands
since Feb 2016

Delft University of Technology

MSc. in Computer Science

Graduated with distinction

Delft, The Netherlands
Aug 2013 – Aug 2015

Delft University of Technology

BSc. in Applied Physics

Delft, The Netherlands
Aug 2008 – Jun 2012

Professional Experience

Research Intern (Amazon.com)

Summer internship at Amazon AI

Research on unsupervised video representation learning using bidirectional GANs.

Seattle, USA

Jun 2019 – Sep 2019

Research Intern (TomTom)

Internship in the Autonomous Driving team

Research on high-speed objection detection with feature boosting for embedded devices.

Eindhoven, The Netherlands

Nov 2014 – Aug 2015

Software Engineer (Dept)

Part-time software engineer during my MSc. study

Delft, The Netherlands

Oct 2013 – Apr 2015

Research Assistant (Delft Univ. of Technology)

Software engineer in the Quantitative Imaging group

Delft, The Netherlands

Jun 2012 – Oct 2012

Publications

- **T.F.H. Runia**, A. Berneshawi, R. Rama Varior, U. Bücher, D. Modolo, J. Tighe. Bidirectional GANs for Unsupervised Video Representation Learning. *Under Review*, 2019.
- **T.F.H. Runia**, K. Gavriluk, C.G.M. Snoek, A.W.M. Smeulders. Never Seen Physical Measurements through Simulations: A Case Study of Cloth in the Wind. *Under Review*, 2019.
- **T.F.H. Runia**, K. Gavriluk, C.G.M. Snoek, A.W.M. Smeulders. Go with the Flow: Perception-refined Physics Simulation. In *arXiv Preprint*, 2019.

- **T.F.H. Runia**, C.G.M. Snoek, A.W.M. Smeulders. Repetition Estimation. In *International Journal of Computer Vision (IJCV)*, 2019.
- 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, A.W.M. Smeulders. Real-World Repetition Estimation by Div, Grad and Curl. Spotlight presentation. In *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018.
- **T.F.H. Runia**, C.G.M. Snoek, A.W.M. Smeulders. Primitive Motion Types for Learning from Instructional Video. In *Computer Vision and Pattern Recognition Workshops (CVPR-W)*, 2018.
- **T.F.H. Runia**, R. Lukassen, L.Zhang, M.Loog. The System Design of a High-Speed Object Detector. In *The Dutch Conference on Computer Vision (NCCV)*, 2015.

Miscellaneous

- **Teaching**
 - **Deep Learning**, Master AI course, University of Amsterdam, 2017 & 2018
 - **Information Visualization**, Bachelor AI course, University of Amsterdam, 2016
- **Thesis Supervision**
 - Erik Stammes, “Weakly-supervised Semantic Segmentation” (MSc, ongoing)
 - Danny Dijkzeul, “Unsupervised Machine Translation” (BSc, 2019)
 - Bram Kooiman, “Semi-Supervised Audio Source Separation” (MSc 2018)
 - Rijnder Wever, “Counting with Variational Autoencoders” (BSc, 2018)
 - Matthew van Rijn, “Imitation Learning for Drones” (BSc, 2017)
 - Michelle Appel, “Bitcoin Price Prediction using RNNs” (BSc, 2017)
 - Wout Kooijman, “Bitcoin Price Prediction using RNNs” (BSc, 2017)
- **Summer Schools**
 - International Computer Vision Summer School (Italy, 2017)
 - iV&L Summer School on Language and Vision (Malta, 2016)
 - Learning from Silicon Valley (USA, 2014)
- **Reviewer Activity**
 - **Conferences:** CVPR, ECCV, ICCV, ACM-MM, ICLR, NeurIPS
 - **Journals:** TPAMI, IJCV
- **Extracurricular Activities**
 - **Board Member**, Study Association for Applied Physics, 2012 – 2013
 - **Electronic Committee**, Study Association for Applied Physics, 2009 – 2012
 - **Editor in Chief**, Study Association for Applied Physics, 2010
- **Technical Expertise**
 - **Programming languages:** Python, Java, C++, C#, R, Lua, MatLab, JavaScript, Bash
 - **Software:** PyTorch, TensorFlow, Caffe, OpenCV, Git, LaTeX, Blender, AutoDesk 3ds Max
 - **Open source contributions:** github.com/tomrunia