Sagie Benaim

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EDUCATION

Tel Aviv University, Tel Aviv, Israel **February 2017 - now**

PhD in Computer Science (Computed Vision, Deep Learning)

- Research with Prof Lior Wolf in the areas of Unsupervised Learning, Self-supervised, Semi-supervised Learning, Generative Models and Domain Adaptation.
- Awarded The Raymond and Beverly Sackler Excellence Scholarship for the Faculty of Exact Sciences (January 2018).

University of Oxford, Oxford, UK **September 2011 - September 2012**

MSc Mathematics and the Foundations of Computer Science (Distinction)

- Thesis: 'Verification of Two Variable Variable First Order Logic and related Logics on trees'. Research with Prof Michael Benedikt in the areas of Algorithms, Formal verification, Logic, Complexity.

Imperial College London, London, UK **September 2008 - June 2011**

BSc Mathematics and Computer Science (1st Class Honours)
Awards/Bursaries

- Computing Entrance Award - Academic Excellence (October 2008)
- Gloucester Research Award - Academic Excellence (awarded top 10 students across all years in department) (October 2009)
- Nuffield Undergraduate Research Bursary - Summer research (June 2010)

PUBLICATIONS

S. Benaim, A. Ephrat, O. Lang, T. Dekel, I. Mosseri, W. Freeman, M. Rubinstein, M. Irani. SpeedNet: Learning the Speediness in Videos. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2020. **Accepted as an oral presentation**.

R. Mokady, S. Benaim, L. Wolf, A. Bermano. Mask Based Unsupervised Content Transfer. International Conference on Learning Representations (ICLR), 2020.

S. Benaim, M. Khaitov, T. Galanti, L. Wolf. Domain Intersection and Domain Difference. IEEE International Conference on Computer Vision (ICCV), 2019.

M. Michaelsvhvilli, S. Benaim, L. Wolf. Semi-Supervised Monaural Singing Voice Separation With A Masking Network Trained On Synthetic Mixtures. International Conference on Acoustics, Speech, and Signal Processing (ICASSP), 2019.

O. Press, T. Galanti, S. Benaim, L. Wolf. Emerging Disentanglement in Auto-Encoder Based Unsupervised Image Content Transfer. International Conference on Learning Representations (ICLR), 2019.

L. Wolf, S. Benaim, T. Galanti. Unsupervised Learning of the Set of Local Maxima. International Conference on Learning Representations (ICLR), 2019.

S. Benaim, L. Wolf. One-Shot Unsupervised Cross Domain Translation. In Neural Information Processing Systems Conference (NeurIPS), 2018.

S. Benaim, T. Galanti, L. Wolf. Estimating the Success of Unsupervised Image to Image

Translation. In European Conference of Computer Vision (ECCV), 2018.

T. Galanti, L. Wolf, S. Benaim. The Role of Minimal Complexity Functions in Unsupervised Learning of Semantic Mappings. In International Conference on Learning Representations (ICLR), 2018

S. Benaim, L. Wolf. One-Sided Unsupervised Domain Mapping. In Neural Information Processing Systems Conference (NIPS), 2017. **Accepted as a spotlight presentation**.

S.Benaim, M.Benedikt, W.Charatonik, E.Kieronski, R.Lenhardt, F.Mazowiecki and J.Worell. Complexity of Two-Variable Logic on Finite Trees. International Colloquium on Automata, Languages and Programming (ICALP), 2013.

- Also accepted to ACM Transactions on Computational Logic, Volume 17, 2016

Employment

Google Research, Israel **June 2019 - September 2019**
Research Intern, Perception Team
- *Role:* Research in self supervised learning of videos.

Tel Aviv University, Israel **February 2019 - July 2019**
Course lecturer for the course 'Convolutional Neural Networks'.

Israel Defence Forces, Israel **October 2013 - October 2016**
Software Engineer, Intelligence Unit
- *Role:* Research and development in the flagship project of the department.
- Programming in Embedded Settings in C and Python, Network programming (TCP/IP), Unix programming. Good understanding of OS, Networking and Security Concepts.

Imperial College London, London, UK **June 2009 - September 2010**
Supervisors: Professor David Ham, Dr Jon Hill
Applied Modelling and Computation Group
- *Role:* Improve Imperial College Ocean Model (ICOM)

Imperial College London, London, UK **June 2009 - September 2009**
Supervisors: Professor David Colling, Dr Janusz Martiniak
High Energy Physics Group
- *Role:* Integration of Imperial's GridPP and Nordugrid information systems (two distributed grid systems used for particle physics)

Skills

Computing Skills
Programming and Scripting Languages:
- Proficient: C, Python, Java, Haskell, Matlab, Unix, Network Programming, Assembly (x86 and others), Latex. DL Platforms: Pytorch, Tensorflow.
- Working knowledge of C++, Prolog

Operating Systems: Linux, Windows
Others: Databases (PostgreSQL and MySQL), Network programming (TCP/IP), Unix programming, OS, Networking and Security Concepts and Tools

Languages: English, Hebrew (Native), French (Basic)