Eli Schwartz – CV

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Education

2016-2018 **M.Sc. Electrical Engineering, Tel Aviv University, Israel**

- Advisors – Dr. Raja Giryes and Prof. Alex Bronstein
- Thesis – Deep Learning for Low Level Vision (Denoising/Demosaicing/Full ISP)
- Selected courses – Computer Vision, Advanced Topics in Computer Vision, Computational Photography, Video Processing and Analysis, Optimization

2007-2011 **B.Sc. Electrical Engineering, Technion - Israel institute of technology**

- Specialized in - Signal and Image Processing, Computer Engineering, Biological signals and Systems
- Final project - Detection of manipulations ("photoshopping") in images
  - The project won the Thomas Schwartz Award for outstanding projects in image processing and computer vision

Employment

2017-Present **Computer Vision Researcher - IBM**

- Conducting publishable research on deep-learning based few-shot object recognition and detection

2015-2017 **Co-founder & CTO – Inka Robotics**

- A startup developing a vision-based autonomous tattooing robot
- Led the technical team developing algorithms, software & micro-controllers
- Turn it from idea to a working prototype (that tattooed my leg)

2013-2016 **Computer Vision Algorithm Engineer – Microsoft**

- Worked on the HoloLens Project (augmented reality smart glasses)
- Part of an incubation team – fast development of PoC for innovative technologies
- Developed computer vision algorithms for 3D cameras and Gaze tracking
- Developed algorithms in Matlab & performance critical implementations in C++

2011-2013 **ASIC Engineer – Qualcomm**

- Formal verification technical lead
- Functional verification

2008-2011 **ASIC Engineering Intern – IBM**

- ASIC formal and functional verification

2002-2005 **Military Service** - Combat military service in the Armored Corps, IDF

Teaching

2018 TA - Deep Learning course (CS@Technion)

2017 Supervising undergrad students final project (EE@Tel-Aviv University)

Languages

- Hebrew - Mother tongue
- English – fluent

Programing languages and environments

TensorFlow/Pytorch/Theano, OpenCV, Python, Matlab, C++, C, Windows, Linux

Publications and Patents

- **E. Schwartz***, L. Karlinsky*, J. Shtok, S. Harary, M. Marder, R. Feris, A. Kumar, R. Giryes and A. Bronstein, **“Delta-encoder: an effective sample synthesis method for few-shot object recognition”**, 2018 pdf
- **E. Schwartz***, L. Karlinsky*, J. Shtok*, S. Harary*, M. Marder, S. Pankanti, R. Feris, A. Kumar, R. Giryes and A. Bronstein, **“RepMet: Representative-based metric learning for classification and one-shot object detection”**, 2018 pdf
- C. Baskin*, **E. Schwartz***, E. Zheltonozhskii, N. Liss, R. Giryes, A. M. Bronstein and A. Mendelson, **“UNIQ: Uniform Noise Injection for the Quantization of Neural Networks”**, 2018 pdf
- **E. Schwartz**, R. Giryes and A. M. Bronstein, **“DeepISP: Learning End-to-End Image Processing Pipeline”**, 2018 pdf
- E. Shalev, S. Katz, and **E. Schwartz. "Imaging devices and methods for authenticating a user."** U.S. Patent Application No. 14/995,025.