IDAN SCHWARTZ

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EDUCATION

2015-Current: Direct Ph.D. program at Computer Science Department, Technion. GPA 95

- Topic: Cognition Models in Deep Learning
- Main Interests: Multimodal problems, Attention
- Visiting Scholar at University of Illinois at Urbana-Champaign (UIUC)
- Advisors: Prof. Tamir Hazan (Technion), Prof. Alexander G. Schwing (UIUC)

2011-2015: BSc at Computer Science Department, Technion. GPA 88

- **NLP project:** Extended the Word2Vec algorithm with WordNet ontologies.
- **Bioinformatics project:** Generated clusters of cancer-indicative genes.
- **Intelligent Systems project:** Calculated travel distance using a series of images.

PROFESSIONAL EXPERIENCE

2019-?: Researcher at Microsoft corp, Cortana team
Part of Cortana research group. Working on Action-Item detection based on meetings transcripts.

2016-2018: Senior Researcher at eBay corp, Catalog team
Working with Dr. Ido Guy and Dr. Kira Radinsky
Main problems: Leading a successful research for detecting products deduplication based on NLP and CV solutions. The model I developed allowed automatic merging of millions of catalog products, reducing the overall duplicates on eBay website from 30% to 12%.

2011-2015: Software Developer at Intel corp.
Our team designed and developed a software framework for chip testing and debugging.
As part of the team I took a major role in the system architecture and design of new features.

2008-2011: Web Developer - IDF service
A full-stack web developer. Implemented web systems that served thousands of customers.

PUBLICATIONS

Factor Graph Attention; CVPR'2019
I. Schwartz, A.G. Schwing, T. Hazan

- A generic graph-based attention mechanism for any number of utilities.
- First place in Visual Dialog challenge on MRR, R1, R5, R10 and Mean metrics.

Simple Baseline for Audio-Visual Scene-Aware Dialog; CVPR'2019
I. Schwartz, A.G. Schwing, T. Hazan

- A multimodal solution for scene-aware dialogs over videos with sound.
- State-of-the-art model for Audio-Visual Scene-Aware Dialog task.

High-Order Attention Models for Visual Question Answering; NIPS'2017
I. Schwartz, A.G. Schwing, T. Hazan

- Introducing unary, pairwise and ternary potentials for multimodal attention.
- State-of-the-art model for Multiple-Choice Visual Question Answering task.

PROGRAM COMMITTEE

UAI'18; NIPS'18; ICLR'19; CVPR'19; ICML'19; ICCV'19; NIPS'19

TEACHING EXPERIENCE

- **Lecturer:** Autumn Data Science School with Dr. Kira Radinsky
- **Guest Lecturer:** Deep Learning (097200, 236606); Natural Language Processing (097215); Deep Learning for Natural Language Processing (232601)
- **Teaching assistant in charge:** Advanced Data Science (236605)
- **Teaching assistant in charge:** Theory of Compilation (236360)
- **Teaching assistant:** Introduction to Software Design (234122)

CODING SKILLS

- **Languages:** Python, Lua, Java, C++, Web Development
- **Deep Learning:** PyTorch, Torch