

# SIVAN SCHWARTZ

PhD Candidate, AI and Computational Neuroscience, Technion

## Details

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## Profile

Experienced, passionate, and dedicated Data Scientist with years of experience in statistical models, machine learning, deep learning, signal processing, and computer vision. Proven track record of generating statistical and ML models to explore high-dimensionality problems in Neurophysiology, Cognitive Psychology, and Computer Vision.

## Education

### **PhD, Computational Neuroscience, Faculty of Medicine and Computer Science, Technion - Israel Institute of Technology**

Mar 2021 — Nov 2025

Supervision from both Medicine and Computer Science faculty, Technion.

Won Technion Faculty of Medicine Excellency Award for exceptional academic achievement and publication, 2021

### **M.Sc, in direct PhD track, Computational Neuroscience, summa cum laude, Technion - Israel Institute of Technology**

Mar 2019 — Mar 2021

Won the Leonard and Daine Sherman Award for excellence in multidisciplinary research, 2019

### **Computer Science, specific courses from B.Sc program, Open University**

Aug 2017 — Mar 2019

### **B.A in Psychology, summa cum laude (rank = 1), University of Haifa**

Oct 2014 — Oct 2017

Excellent student research program.

Won Yechieal Hofman award for Extraordinary seminar research.

Won dean's Great honor for undergraduate students, 2015, 2016, 2017

## Employment History

### **Director, HiCenter Ventures**

2024 - Current

### **AI Researcher, IBM Research**

2022 - 2024

R&D of computer vision SOTA models

### **Head of Tutors, Computational research methods course, Technion**

2019 - 2022

R language, Signal processing, Linear fit and classification

### **Head of Tutors, Statistics, Technion**

2019 - 2022, 2024 - 2025

Inferred and descriptive statistic, R language

### **Tutor, Advanced statistics and research methods for graduate students, University of Haifa**

2016 - 2017

GLM models

## **Programming and Data Analysis**

- Python (PyTorch, Tensorflow, Pandas, Numpy, sklearn, matplotlib etc.) - 6 years experience
- R - 4 years experience
- Matlab - 8 years experience
- Java - 2 years experience

## **Publications** (additional publications expected in 2026)

- **VTA projections to M1 are essential for reorganization of layer 2-3 network dynamics underlying motor learning, Nature Communications**

2025

Ghanayim A., Benisty H., Cohen Rimon A., **Schwartz S.**, Dabdoob S., Lifshitz S., Talmon R. & Schiller J.

- **Enhancing Trust in LLM-Based AI Automation Agents: New Considerations and Future Challenges, IJCAI workshop**

2023

**Schwartz, S\***, Yaeli, A., & Shlomov, S.

- **Semantic UI Understanding in the Era of AI, IJCAI**

2023

Abitbol, R., **Schwartz, S.**, & Shlomov, S.

- **Learning Disentangled Behavior Embeddings, NeurIPS**

2021

\*\*\* **won the spotlight award.**

Shi\*, C., **Schwartz\*, S.**, Levy, S., Achvat, S., Abboud, M., Ghanayim, A., Schiller, J., & Mishne, G.

- **Do deaf individuals have better visual skills in the periphery? Evidence from processing facial attributes, Visual Cognition**

2020

Shalev, T., **Schwartz, S.**, Miller, P., & Hadad, B. S.

- **Perception in autism does not adhere to Weber's law, eLife**

2019

Hadad, B. S., & Schwartz, S.

- **Reduced perceptual specialization in autism: Evidence from the other race face effect,**

**Journal of Experimental Psychology**

2019

Hadad, B. S., Schwartz, S., & Binur, N.

- **Emotional cues differently modulate processing of faces and objects, Emotion**

2018

Mardo, E., Schwartz, S., Avidan, G., & Hadad, B.

- **Motion perception: a review of developmental changes and the role of early visual experience, Frontiers in Integrative Neuroscience**

2015

Hadad, B., Schwartz, S., Maurer, D., & Lewis, T. L.