

Roy Schwartz, Curriculum Vitae, February 2023

Contact Information

The Hebrew University of Jerusalem <https://schwartz-lab-huji.github.io/>
School of Computer Science and Engineering, Edmond roy.schwartz1@mail.huji.ac.il
Safra Campus, Givat Ram, The Hebrew University,
Jerusalem, 9190401

Academic Positions

Senior Lecturer, Hebrew University of Jerusalem 2020–
Research Scientist, Allen Institute for Artificial Intelligence 2019–2020
Postdoctoral Scholar, University of Washington 2016–2019
Host: Prof. Noah A. Smith
Postdoctoral Scholar, Allen Institute for Artificial Intelligence 2016–2019

Education

The Hebrew University of Jerusalem 2011–2016
Ph.D., School of Computer Science and Engineering

The Hebrew University of Jerusalem 2009–2011
M.Sc. **magna cum laude** in Computer Science
The Hebrew University of Jerusalem 2005–2008
B.Sc. **magna cum laude** in Computer Science and Cognitive Science
Member of the Amirim program for outstanding undergraduate students of sciences

Awards and Scholarships

PAPER AWARDS

Journal cover; Communications of the ACM (CACM) 2020
Best paper award; Workshop on Representation Learning for NLP (RepL4NLP) 2018
Best performing system; Workshop on Linking Models of Lexical, Sentential and Discourse-Level Semantics (LSDSem) shared task 2017

GRANTS

Israeli Science Foundation (**ISF**) Grant (\$225,000) 2021–2025
U.S.-Israeli Binational Science Foundation (**NSF-BSF**) Grant (\$225,000) 2021–2024
Intel Research Gift (\$150,000) 2021–2024
Google Research Gift (\$30,000) 2022
Allen Institute for AI Research Gift (\$100,000) 2020
Hebrew University Data Science Center Research Grant (\$20,000) 2020, 2021
NVIDIA's GPU grant 2017, 2018

STUDENT AWARDS

Hoffman leadership and responsibility program for **outstanding Ph.D. students** 2011–2014
Dean prize for academic achievements 2006

OUTSTANDING REVIEWER

North American Chapter of the Association of Computational Linguistics (NAACL) 2018
Annual Meeting of the Association of Computational Linguistics (ACL) 2014, 2015, 2017, 2021

TEACHING AWARDS

Ranked first in the School of Computer Science student evaluation survey 2012
Faculty of Science excellent teachers list based on student evaluation 2010

Students

MASTERS

[1] **Yuval Reif**, *Fighting Bias With Bias: Promoting Model Robustness by Amplifying Dataset Biases*. 2023

- [2] **Aviad Sar Shalom**, *Curating Datasets for Better Performance with Example Training Dynamics*. 2023
- [3] **Michael Hassid**, *How Much Does Attention Actually Attend? Questioning the Importance of Attention in Pretrained Transformers*. 2022
- [4] **Boaz Beldinger**, *Attempts for Improving Prompting in Few-Shot Methods and Utilization of Unlabeled Data in Few-Shot Environments*. 2022
- [5] **Inbal Magar**, *Data Contamination: From Memorization to Exploitation*. 2022
- [6] **Yarden Tal**, *Fewer Errors, but More Stereotypes? The Effect of Model Size on Gender Bias*. 2022

UNDERGRADUATE

- [1] **Roi Tal**, *Teaching Machines to Solve Hebrew Cryptic Puzzles*. 2022

Publications

JOURNAL ARTICLES

- [1] W. Merrill, Y. Goldberg, **R. Schwartz**, and N. A. Smith. 2021. *Provable Limitations of Acquiring Meaning from Ungrounded Form: What will Future Language Models Understand?*. Transactions of the Association for Computational Linguistics (TACL).
- [2] **R. Schwartz**, D. Dodge, N. A. Smith, and O. Etzioni. 2020. *Green AI*. Communications of the ACM (CACM). **Journal Cover**.
- [3] Y. Bitton, R. Yosef, E. Strugo, D. Shahaf, **R. Schwartz**, and G. Stanovsky, *VASR: Visual Analogies of Situation Recognition*. AAAI Conference on Artificial Intelligence (AAAI 2023).

LONG CONFERENCE PAPERS

- [4] M. Hassid, H. Peng, D. Rotem, J. Kasai, I. Montero, N. A. Smith and **R. Schwartz**, *How Much Does Attention Actually Attend? Questioning the Importance of Attention in Pretrained Transformers*. Findings of the Conference on Empirical Methods in Natural Language Processing (Findings of EMNLP 2022).
- [5] Y. Bitton, N. Bitton Guetta, R. Yosef, Y. Elovici, M. Bansal, G. Stanovsky, and **R. Schwartz**, *WinoGAViL: Gamified Association Benchmark to Challenge Vision-and-Language Models*. Neural Information Processing Systems Track on Datasets and Benchmarks (NeurIPS Datasets and Benchmarks 2022). **Featured presentation**.
- [6] **R. Schwartz**, and Gabriel Stanovsky. *On the Limitations of Dataset Balancing: The Lost Battle Against Spurious Correlations*. Findings of the North American Chapter of the Association of Computational Linguistics (Findings of NAACL 2022).
- [7] J. Dodge, T. Prewitt, R. Tachet des Combes, E. Odmark, **R. Schwartz**, E. Strubell, A. S. Luccioni, N. A. Smith, N. DeCario, W. Buchanan. *Measuring the Carbon Intensity of AI in Cloud instances*. The ACM Conference on Fairness, Accountability, and Transparency (FAccT 2022).
- [8] H. Peng, J. Kasai, N. Pappas, D. Yogatama, Z. Wu, L. Kong, **R. Schwartz**, and N. A. Smith. *ABC: Attention with Bounded-memory Control*. Annual Meeting of the Association of Computational Linguistics (ACL 2022).
- [9] W. Merrill, V. Ramanujan, Y. Goldberg, **R. Schwartz**, and N. A. Smith, *Parameter Norm Growth During Training of Transformers*. Conference on Empirical Methods in Natural Language Processing (EMNLP 2021).
- [10] Y. Bitton, G. Stanovsky, M. Elhadad, and **R. Schwartz**. *Data Efficient Masked Language Modeling for Vision and Language*. Findings of the Conference on Empirical Methods in Natural Language Processing (Findings of EMNLP 2021).
- [11] T. Hope, A. Amini, D. Wadden, , M. van Zuylen, S. Parasa, E. Horvitz, D. Weld, **R. Schwartz**, and H. Hajishirzi, *Extracting a knowledge base of mechanisms and effects from COVID-19 papers*. North American Chapter of the Association of Computational Linguistics (NAACL 2021).

- [12] H. Peng, N. Pappas, D. Yogatama, **R. Schwartz**, N. A. Smith, and L. Kong, *Random Feature Attention*. International Conference on Learning Representations (ICLR 2021). **Spotlight presentation**.
- [13] S. Swayamdipta, **R. Schwartz**, N. Lourie, Y. Wang, H. Hajishirzi, N. A. Smith, and Y. Choi, *Dataset Cartography: Mapping and Diagnosing Datasets with Training Dynamics*. Conference on Empirical Methods in Natural Language Processing (EMNLP 2020).
- [14] **R. Schwartz**, G. Stanovsky, S. Swayamdipta, J. Dodge, and N. A. Smith, *The Right Tool for the Job: Matching Model and Instance Complexities*. Annual Meeting of the Association of Computational Linguistics (ACL 2020).
- [15] H. Peng, **R. Schwartz**, D. Li, and N. A. Smith, *A Mixture of $h-1$ Heads is Better than h Heads*. Annual Meeting of the Association of Computational Linguistics (ACL 2020).
- [16] W. Merrill, G. Weiss, Y. Goldberg, **R. Schwartz**, N. A. Smith, and E. Yahav, *A Formal Hierarchy of RNN Architectures*. Annual Meeting of the Association of Computational Linguistics (ACL 2020).
- [17] J. Dodge, S. Gururangan, D. Card, **R. Schwartz**, and N. A. Smith, *Show Your Work: Improved Reporting of Experimental Results*. Conference on Empirical Methods in Natural Language Processing (EMNLP 2019).
- [18] M. E. Peters, M. Neumann, R. Logan, **R. Schwartz**, V. Joshi, S. Singh, and N. A. Smith, *Knowledge Enhanced Contextual Word Representations*. Conference on Empirical Methods in Natural Language Processing (EMNLP 2019).
- [19] H. Peng, **R. Schwartz**, S. Thomson, and N. A. Smith, *Rational Recurrences*. Conference on Empirical Methods in Natural Language Processing (EMNLP 2018).
- [20] R. Zellers, Y. Bisk, **R. Schwartz**, and Y. Choi, *SWAG: A Large-Scale Adversarial Dataset for Grounded Commonsense Inference*. Conference on Empirical Methods in Natural Language Processing (EMNLP 2018).
- [21] **R. Schwartz**, S. Thomson, and N. A. Smith, *SoPa: Bridging CNNs, RNNs, and Weighted Finite-State Machines*. Annual Meeting of the Association of Computational Linguistics (ACL 2018).
- [22] D. Kang, W. Ammar, B. Dalvi, M. van Zuylen, S. Kohlmeier, E. Hovy, and **R. Schwartz**, *A Dataset of Peer Reviews (PeerRead): Collection, Insights and NLP Applications*. North American Chapter of the Association of Computational Linguistics (NAACL 2018).
- [23] **R. Schwartz**, M. Sap, Y. Konstas, L. Zilles, Y. Choi, and N. A. Smith, *The Effect of Different Writing Tasks on Linguistic Style: A Case Study of the ROC Story Cloze Task*. Conference on Natural Language Learning (CoNLL 2017).
- [24] I. Vulić, **R. Schwartz**, R. Reichart, A. Rappoport, and A. Korhonen, *Automatic Selection of Context Configurations for Improved (and Fast) Class-Specific Word Representations*. Conference on Natural Language Learning (CoNLL 2017).
- [25] **R. Schwartz**, R. Reichart, and A. Rappoport, *Symmetric Pattern Based Word Embeddings for Improved Word Similarity Prediction*. Conference on Natural Language Learning (CoNLL 2015).
- [26] **R. Schwartz**, R. Reichart, and A. Rappoport, *Minimally Supervised Classification to Semantic Categories Using Automatically Acquired Symmetric Patterns*. International Conference on Computational Linguistics (COLING 2014).
- [27] **R. Schwartz**, O. Tsur, A. Rappoport, and M. Koppel, *Authorship Attribution of Micro-Messages*. Conference on Empirical Methods in Natural Language Processing (EMNLP 2013).
- [28] **R. Schwartz**, O. Abend, and A. Rappoport, *Learnability-Based Syntactic Annotation Design*. International Conference on Computational Linguistics (COLING 2012).
- [29] **R. Schwartz**, O. Abend, R. Reichart, and A. Rappoport, *Neutralizing Linguistically Problematic Annotations in Unsupervised Dependency Parsing Evaluation*. Annual Meeting of the Association of Computational Linguistics (ACL 2011).

- [30] I. Magar, and **R. Schwartz**, *Data Contamination: From Memorization to Exploitation*. Annual Meeting of the Association of Computational Linguistics (ACL 2022).
- [31] J. Dodge, S. Gururangan, D. Card, **R. Schwartz**, and N. A. Smith, *Expected Validation Performance and Estimation of a Random Variable’s Maximum*. Findings of the Conference on Empirical Methods in Natural Language Processing (Findings of EMNLP 2021).
- [32] Y. Bitton, G. Stanovsky, **R. Schwartz**, and M. Elhadad, *Automatic Generation of Contrast Sets from Scene Graphs: Probing the Compositional Consistency of GQA*. North American Chapter of the Association of Computational Linguistics (NAACL 2021)
- [33] J. Dodge, **R. Schwartz**, H. Peng, and N. A. Smith, *RNN Architecture Learning with Sparse Regularization*. Conference on Empirical Methods in Natural Language Processing (EMNLP 2019).
- [34] H. Peng, **R. Schwartz**, and N. A. Smith, *PaLM: A Hybrid Parser and Language Model*. Conference on Empirical Methods in Natural Language Processing (EMNLP 2019).
- [35] N. Liu, **R. Schwartz**, and N. A. Smith, *Inoculation by Fine-Tuning: A Method for Analyzing Challenge Datasets*. North American Chapter of the Association of Computational Linguistics (NAACL 2019).
- [36] S. Gururangan, S. Swayamdipta, O. Levy, **R. Schwartz**, S. Bowman, and N. A. Smith, *Annotation Artifacts in Natural Language Inference Data*. North American Chapter of the Association of Computational Linguistics (NAACL 2018).
- [37] **R. Schwartz**, R. Reichart, and A. Rappoport, *Symmetric Patterns and Coordinations: Fast and Enhanced Representations of Verbs and Adjectives*. North American Chapter of the Association of Computational Linguistics (NAACL 2016).
- [38] D. Rubinstein, E. Levi, **R. Schwartz**, and A. Rappoport, *How Well Do Distributional Models Capture Different Types of Semantic Knowledge?* Annual Meeting of the Association of Computational Linguistics (ACL 2015).

WORKSHOP PAPERS

- [39] J. Mamou, O. Pereg, M. Wasserblat, and **R. Schwartz**, *TangoBERT: Reducing Inference Cost by using Cascaded Architecture*. Workshop on Energy Efficient Training and Inference of Transformer Based Models (EMC² 2023).
- [40] Y. Tal, I. Magar, and **R. Schwartz**. *Fewer Errors, but More Stereotypes? The Effect of Model Size on Gender Bias*. Workshop on Gender Bias in Natural Language Processing (GeBNLP 2022).
- [41] A. Amini, T. Hope, D. Wadden, **R. Schwartz**, and H. Hajishirzi, *Extracting a knowledge base of mechanisms from COVID-19 papers*. Workshop on Natural Language Processing and Data Mining for Scientific Text (SciNLP 2020).
- [42] N. F. Liu, O. Levy, **R. Schwartz**, C. Tan, and N. A. Smith, *LSTMs Exploit Linguistic Attributes of Data*. Workshop on Representation Learning for NLP (RepL4NLP 2018). **Best paper award**.
- [43] **R. Schwartz**, M. Sap, Y. Konstas, L. Zilles, Y. Choi, and N. A. Smith, *Story Cloze Task: UW NLP System*. Workshop on Linking Models of Lexical, Sentential and Discourse-Level Semantics (LSDSem 2017). **Best performing system**.

PRE-PRINTS

- [44] M. Treviso, T. Ji, J. Lee, B. v. Aken, Q. Cao, M. R. Ciosici, M. Hassid, K. Heafield, S. Hooker, P. H. Martins, A. F. T. Martins, P. Milder, C. Raffel, E. Simpson, N. Slonim, N. Balasubramanian, L. Derczynski, and **R. Schwartz**, *Efficient Methods for Natural Language Processing: A Survey*. arXiv:2209.00099.
- [45] J. Dodge, G. Ilharco, **R. Schwartz**, A. Farhadi, H. Hajishirzi, and N. A. Smith, *Fine-Tuning Pre-trained Language Models: Weight Initializations, Data Orders, and Early Stopping*. arXiv:2002.06305.

Invited Talks

Green AI

EPFL, IC colloquium	12/2022
Lancaster's Data Science Lunchtime Seminar	02/2022
International Society for Computational Biology (ISMB/ECCB 2021), <i>Computational Biology going Green</i> Session	07/2021
Sustainable AI Conference	06/2021
Microsoft, Machine Learning Seminar	04/2020

On the Limitations of Dataset Balancing: The Lost Battle Against Spurious Correlations

Technion, Computational Data Science Seminar	11/2022
Tel Aviv University, NLP Seminar	04/2022

Not all Textual Instances are Alike: Efficient NLP by Better Understanding of our Data

SustainNLP 2021 Workshop, Invited Speaker	11/2021
Technion, Computational Data Science Seminar	06/2021

Green NLP

Hebrew University, CS Learning Seminar	01/2021
Intel Inc. Israel, Natural Language Processing Group Seminar	01/2021
Berkeley, Natural Language Processing Group Seminar	03/2020
Stanford, Natural Language Processing Group Seminar	03/2020
Google Brain, Natural Language Processing Group Seminar	03/2020

Towards Interpretable Deep Learning for Natural Language Processing

Technion, Computer Science, Electrical Engineering, and Industrial Engineering Colloquia	12/2018
Tel Aviv University, Computer Science and Electrical Engineering Colloquia	12/2018
The Hebrew University, Computer Science Colloquium	12/2018
Weizmann Institute, Machine Learning Seminar	12/2018

Teaching Machine how to Read

Invited Poster, Computing Community Consortium Early Career Researcher Symposium	08/2018
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Inductive Bias of Deep Networks through Language Patterns

Google Research Tel-Aviv, Machine Learning Seminar	12/2017
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Pattern-Based Solutions to Limitations of Leading Word Embeddings

University of Pennsylvania, Natural Language Processing Group Seminar	02/2016
Johns Hopkins University, Natural Language Processing Group Seminar	02/2016
University of Washington, Natural Language Processing Group Seminar	02/2016

Automatic Extraction of Semantic Relations from Large Bodies of Text

Tel Aviv University, Cognitive Neuroscience Group Seminar	12/2015
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Word Similarity via Symmetric Patterns

IBM Research Tel Aviv, Machine Learning and Data Mining Group Seminar	09/2015
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Semantic Knowledge Acquisition Using Frequency Based Patterns

Catalonia-Israel Symposium on Lexical Semantics and Grammatical Structure	02/2015
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Acquiring Semantic Knowledge Using Patterns

Hebrew University, CS Learning Seminar	12/2014
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Identifying Authorships of Very Short Texts Using Flexible Patterns

Intel Inc. Haifa, ICRI-CI Retreat

05/2014

Semantic Representation Using Flexible Patterns

Berkeley, Natural Language Processing Group Seminar

10/2013

Stanford, Natural Language Processing Group Seminar

10/2013

USC Information Sciences Institute, Natural Language Processing Group Seminar

10/2013

Twitter Inc., Technological Talk

10/2013

Intel Inc. Santa Clara, Natural Language Processing Group Seminar

10/2013

IBM Research Tel Aviv, Machine Learning and Data Mining Group Seminar

10/2013

Professional

Activities

NLP COMMUNITY
INITIATIVES

Co-Organizer, German-Israeli Minerva-Gentner Symposium, “Green NLP for Understanding Complex Information“

2024

Workshop organizing committee, Workshop on Simple and Efficient Natural Language Processing (SustainNLP)

2022

Member of the committee on Efficient NLP appointed by the ACL executive committee

2021–2022

Co-Organizer, Dagstuhl Seminar on Efficient NLP

2022

SENIOR AREA CHAIR

Annual Meeting of the Association of Computational Linguistics (ACL); *Semantics: Sentence-level Semantics, Textual Inference, and Other Areas*

2023

North American Chapter of the Association of Computational Linguistics (NAACL); *Efficient Methods in NLP*

2022

North American Chapter of the Association of Computational Linguistics (NAACL); *Green NLP*

2021

European Chapter of of the Association of Computational Linguistics (EACL); *Green and Sustainable NLP*

2021

AREA CHAIR

North American Chapter of the Association of Computational Linguistics (NAACL) industry track; *Ethics, Bias, and Fairness and Green NLP*

2022

Annual Meeting of the Association of Computational Linguistics (ACL); *Textual Inference and Other Areas of Semantics*

2019, 2020

CONFERENCE
PROGRAM COMMITTEE
MEMBER

International Conference on Learning Representations (ICLR)

2019–2023

ACL Rolling Review

2021–2023

Conference on Empirical Methods in Natural Language Processing (EMNLP)

2013, 2015–2022

Neural Information Processing Systems (NeurIPS)

2018–2019, 2021

Annual Meeting of the Association of Computational Linguistics (ACL)

2013–2018, 2021

AAAI Conference on Artificial Intelligence (AAAI)

2018, 2021

International Conference on Machine Learning (ICML)

2019–2020

North American Chapter of the Association of Computational Linguistics (NAACL)

2016–2019

Conference on Natural Language Learning (CoNLL)

2016–2018

Joint Conference on Lexical and Computational Semantics (*SEM)

2018

European Chapter of the Association of Computational Linguistics (EACL)

2017

JOURNAL REVIEWER

Transactions of the Association for Computational Linguistics (TACL)

2019–2022

Journal of Machine Learning Research (JMLR)

2020

Patterns

2020

PLOS Computational Biology

2020

Journal of Artificial Intelligence Research (JAIR)

2017–2018

Computational Linguistics (CL)

2018

Natural Language Engineering (NLE)

2017

Algorithms

2017

WORKSHOP PROGRAM
COMMITTEE MEMBER

Workshop on Simple and Efficient Natural Language Processing (SustainNLP) 2020–2021	
ACL Student Research Workshop	2020
Linking Models of Lexical, Sentential and Discourse-level Semantics (LSDSem)	2017
Workshop on Evaluating Vector Space Representations for NLP (RepEval)	2016–2017
NAACL-HLT Student Research Workshop	2016, 2021
Joint Workshop on Social Dynamics and Personal Attributes in Social Media	2014

Teaching

ONLINE COURSES

Object Oriented Programming; **Israeli Council of Higher Education Program for Online Digital Learning** 2021–

Primary instructor of one the core CS courses, which is part of the Israeli online digital learning platform, designed to **enhance and replace frontal lectures in all Israeli universities**, as well as provide CS training to non-university students. Designing the course, building and recording online lectures.

Object Oriented Programming on HUJI-Coursera 2014–2020

Primary instructor of the **first ever online course** at the School of Computer Science and Engineering at the Hebrew University. Designing, building and recording online lectures for the main undergraduate programming course, given yearly to **300–500** undergraduate students.

PRIMARY LECTURER

Object Oriented Programming, Hebrew University 2009–2014,
Designing and building the course, giving 2 weekly lectures to **300–500** students, 2021–2023
and **managing a staff of 15** teaching assistants.

Programming in the Perl Language, Hebrew University 2007–2008
Initiator, designer, and primary instructor of a graduate programming course (30 students). Course **designed and taught** while still **an undergraduate** student.

INVITED LECTURES

EPFL, Master’s machine learning course (CS-433). 2022
University of Washington School of Computer Science and Engineering master’s Natural Language Processing course (CSEP 517). 2017

Professional Experience

Mentor, “MEET” (Middle East Education through Technology) 2008
Software Engineer, Check Point Software Technologies LTD 2004–2005
Course Guide, IDF “AHAM” Training Course 2003–2004
Software Engineer, IDF Intelligence Corps 2001–2003

Technical Skills

Programming languages Python, C/C++, Java, Matlab, Perl, JavaScript, tcsh/bash.
Deep learning frameworks PyTorch, AllenNLP.

Selected Open Source

SOFTWARE

Dataset maps
<https://github.com/allenai/cartography>

The Right Tool for the Job
<https://github.com/allenai/sledgehammer>

Show Your Work
<https://github.com/allenai/allentune>

RNN Architecture Learning with Sparse Regularization
https://github.com/dodgejesse/sparsifying_regularizers_for_RRNNs

PaLM: A Hybrid Parser and Language Model
<https://github.com/Noahs-ARK/PaLM>

Inoculation by Fine-Tuning
<https://github.com/nelson-liu/inoculation-by-finetuning>

Rational recurrent neural networks
<https://github.com/Noahs-ARK/rational-recurrences>

SoPa: Soft patterns recurrent neural networks
https://github.com/Noahs-ARK/soft_patterns

Classifying documents according to their writing style
https://github.com/roys174/writing_style

DATASETS

Knowledge base of COVID-19 mechanisms
<https://github.com/AidaAmini/DyGIE-COFIE>

SWAG: A large-scale adversarial dataset for grounded commonsense inference
<https://rowanzellers.com/swag/>

A hard subset of the Stanford natural language inference dataset
https://nlp.stanford.edu/projects/snli/snli_1.0_test_hard.jsonl

A hard subset of the multi-genre natural language inference dataset
<https://www.kaggle.com/c/multinli-matched-open-hard-evaluation/>

A dataset of peer reviews (PeerRead)
<https://github.com/allenai/PeerRead>

Outreach Activities

INVITED TALKS

European Broadcasting Union Sustainability Summit 2021
The transdisciplinary research convention for artificial intelligence (KI-CAMP), hosted by the German federal ministry of education and research and the German informatics society 2021

RESOURCES FOR KIDS

Interview at Science News for Students 2021

EDUCATIONAL VOLUNTEER WORK

Instructor, Israeli Ministry of Education 2013–2016
Instructor of math seminars to elementary school math teachers.

Volunteer, “Machshava Tova” NPO 2011–2013
“Machshava Tova” aims at narrowing social gaps through technology. The position included building an Android programming course for female orthodox high school students.

Mentor, “Halom” Youth Center 2006–2008
Promoting academic skills of high school students by one-on-one tutoring and mentoring.

Mentor and Teacher, Aldea Infantil Shelter, Puerto-Maldonado, Peru 2005
Volunteering in a shelter for children at risk. Mentoring the children and teaching English in a local high school.

Mentor, “Yachdav” Program 2001–2003
Development of mathematical and English skills of high school students by tutoring.

Languages

Hebrew	Native Language
English	Full Proficiency
Spanish	Advanced Level
Italian, Literary Arabic	Intermediate Level
Portuguese, Mandarin Chinese	Basic Level