

My long-term goal is to create truly intelligent, **cognitively inspired machines**.  
I am interested in **integrating insights from cognitive science to AI research, and vice versa**.

## Education

- 2019-present **Ph.D. in Computation and Information Processing (ELSC)** The Hebrew University of Jerusalem, Israel
- Advisor: Professor Dafna Shahaf
- 2017-2019 **M.Sc., Computation and Information Processing, magna cum laude** The Hebrew University of Jerusalem, Israel
- Interdisciplinary international excellence program
  - Advanced courses in information processing, theory of deep learning, statistics
- 2011-2017 **B.A., Psychology and Management, cum laude** The Open University of Israel, Israel
- Began studying at the age of 16
  - Autodidactic program
  - Dean's excellence award for the 2014-2015 academic year

## Experience

- 2022-present **NLP Consultant** Nartis.ai, Israel
- 2022 **Visiting Researcher** with Jilles Vreeken Helmholtz Center for Information Security (CISPA), Saarbrücken, Germany
- 2019-2022 **NLP Research Scientist at Amazon** Amazon Research, Alexa Shopping team, Israel
- Co-founded the Alexa Humor team
  - Large pretrained language models (BERT, GPT-2/3, T5), PyTorch, TensorFlow, HuggingFace
- 2019-present **Reviewer** (ACL, CIKM, SIGIR, KDD, AMLC)
- 2017-present **Researcher at Dafna Shahaf's Lab** The Hebrew University of Jerusalem, Israel
- Computational surprise, humor & creativity
  - AI, NLP, DL
- 2015-2017 **Manager** of Marketing and Public Relations Psagot Institute, Israel
- Managed teams of over 30 employees
- 2015-2017 **Research Assistant** Vital technologies, Israel
- Conducted cognitive-behavioral experiments
  - Data processing and statistical analysis
- 2013-2014 **Research Assistant** The Open University's behavioral lab, Israel
- Conducted cognitive-behavioral experiments
- 2013-2015 **Psychotechnical Diagnoser & Commander** Israel Defense Forces (IDF), Israel
- Interviewed security service candidates to determine their quality data

## Honors & awards

- 2022 **NeurIPS travel grant**
- The thirty-sixth Conference on Neural Information Processing Systems (NeurIPS) 2022, New Orleans, LA
  - The Edmond and Lily Safra Center for Brain Sciences (ELSC)
- 2017-present **Excellence scholarship**
- The Edmond and Lily Safra Center for Brain Sciences (ELSC)
- 2014-2015 **Dean's excellence award** for the academic year
- The Open University

## Selected publications

- 2022 **The Lean Data Scientist: Recent Advances towards Overcoming the Data Bottleneck**  
**C. Shani**, Y. Zarecki & D. Shahaf
- Communications of the Association for Computing Machinery (**CACM**), DOI: 10.1145/3551635
  - WiML workshop, co-located with the thirty-sixth conference on Neural Information Processing Systems (**NeurIPS**) 2022, New Orleans, Louisiana, USA
  - Innovative Ideas in Data Science workshop, The Web Conference (**WWW**) 2020, Taipei, Taiwan
- 2022 **“Alexa, Do You Want to Build a Snowman?” Characterizing Playful Requests to Conversational Agents**  
**C. Shani**, A. Libov, S. Tolmach, L. Lewin-Eytan, Y. Maarek & D. Shahaf
- The Conference on Human Factors in Computing Systems (**CHI**) Extended Abstracts 2022, New Orleans, Louisiana, USA
  - Amazon Machine Learning Conference (**AMLC**) 2020, Seattle, Washington, USA
- 2021 **How Did This Get Funded?! Automatically Identifying Quirky Scientific Achievements**  
**C. Shani**, N. Borenstein & D. Shahaf
- Annual Conference of the Association for Computational Linguistics (**ACL**) 2021, Bangkok, Thailand
  - Poster and blitz oral presentation at the Jerusalem Brain Community (**JBC**) annual meeting 2020, Mitzpe Ramon, Israel
- 2020 **Language (Re)modeling: Towards Embodied Language Understanding**  
R. Tamari, **C. Shani**, T. Hope, M. R.L. Petruck, O. Abend & D. Shahaf
- Annual Conference of the Association for Computational Linguistics (**ACL**) 2020, Seattle, Washington, USA
  - The Annual Meeting of the Israeli Seminar on Computational Linguistics (**ISCOL**) 2020, Bar-Ilan University, Israel

## Other peer-reviewed publications and presentations

- 2023 **Computational Humor in No Joke (invited talk)**  
• AI week, Tel-Aviv University
- 2023 **Evaluating Response Generation to Playful Shopping Requests**  
N. Shapira, O. Kalinsky, A. Libov, **C. Shani** & S. Tolmach
- The 45th European Conference on Information Retrieval (**ECIR**) 2023, Stavanger, Norway
- 2022 **Can Computers Understand Humor?**  
**C. Shani** & D. Shahaf
- Frontiers for Young Minds, 10:982604. DOI: 10.3389/frym.2022.982604
- 2022 **“It is Impossible to Buy Love Because Love is Free”: Generating Responses to Playful Shopping Requests (poster)**  
N. Shapira, O. Kalinsky, A. Libov, **C. Shani** & S. Tolmach
- Amazon Machine Learning Conference (**AMLC**) 2022, Dallas, Texas, USA
- 2022 **What Is So Surprising About Surprise? (poster)**  
**C. Shani**, J. Halpern & D. Shahaf
- Edmond and Lily Safra Center (**ELSC**) annual meeting 2022, Ein-Gedi, Israel
- 2021 **“Ha-ha, you're so funny” Do customers want Alexa to get their jokes? (poster)**  
**C. Shani**, A. Libov, S. Tolmach, L. Lewin-Eytan, Y. Maarek & D. Shahaf
- Amazon Machine Learning Conference (**AMLC**) 2021, Seattle, Washington, USA
- 2019 **When Should I Respond? Ranking E-mails According to Predicted Response Time (poster and blitz oral presentation)**  
**C. Shani**, Y. Lipiner Nir & D. Shahaf
- Edmond and Lily Safra Center (**ELSC**) annual meeting 2019, Ein-Gedi, Israel
- 2019 **Effects of Positive Psychology Intervention on Subjective and Work Wellbeing of Psychotherapists In CBT Training (poster)**  
M. Barkavi-Shani, **C. Shani**, R. M. Bermejo, Ó. Sánchez-Hernández
- World Congress of Behavioral and Cognitive Therapies (**WCBT**) 2019, Berlin, Germany

## Under review

- 2023      **A paper about analogy mappings**  
S. Jacob, **C. Shani** & D. Shahaf
- ACL Rolling Review

## In progress

- 2023      **Concept-aware large language models**  
**C. Shani** , J. Vreeken & D. Shahaf
- 2023      **A computational modeling of perceived human surprise for improbable facts**  
**C. Shani** , J. Halpern & D. Shahaf
- 2023      **Testing different configurations for assisting humans in analogy making using the output of our analogy engine**  
T. Melamed, **C. Shani** & D. Shahaf
- 2023      **A paper about augmenting language models with commonsense for humor generation**  
A. Klein, S. Filice, O. Kalinsky, A. Libov, **C. Shani** & S. Tolmach

## Teaching

- 2023      **T.A. for "Introduction to Data Science"**      The Hebrew University of Jerusalem, Israel
- 2023      **T.A. for "NLP for Medicine"** (graduate winter school)      The Hebrew University of Jerusalem, Israel
- 2023      **Lecturer for "Human-Computer Interaction"**      Tel-Aviv University (TAU), Israel
- 2023      **Lecturer for "Introduction to Reinforcement Learning"**      Reichman University (IDC), Israel
- 2022      **Data analysis T.A. for "System Neuroscience"** (graduate students)      Technische Universität München (TUM), Germany
- 2021      **Lecturer for "Introduction to Data Science"**      The Hebrew University of Jerusalem, Israel
- 2019-2022      **Tutor** for machine learning, linear algebra and probability courses      The Hebrew University of Jerusalem, Israel

## Volunteering & extracurricular activities

- 2020-2022      **Mentor at JerusML** (Jerusalem's Machine Learning Community)  
Mentor data scientists during their first steps in industry
- 2019-2020      **Programming instructor** at Queen B
- A nonprofit organization that teaches teenage girls programming
  - Weekly basis
  - mentored hackathons
- 2017-2021      Participation in **student council** of ELSC's direct Ph.D. program      The Hebrew University of Jerusalem, Israel
- 2017-2019      Volunteer at the Jerusalem Brain Science Community (JBC), events coordinator
- 2016-2017      Participation in the first **model UN** competitions      The Open University
- Won **first place** & **second place**
- 2010-2011      **Established a start-up company**
- "Young Entrepreneurs" program
  - Invention, manufacture, marketing, distribution, and selling of a solar panel for outdoor activities
- 2009-2010      volunteered with **special needs children**
- 2009-2010      Volunteered with **people suffering from mental illnesses**      Pardesiya Psychiatric Hospital

## Languages

Hebrew - native  
English - fluent