## Oren Sultan, CS PhD Candidate @HebrewU, AI Researcher @Lightricks

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### 1 Education

- Feb 2023 Oct 2026: PhD Candidate (direct track for excellent students) in Computer Science at The Hebrew University, Israel. Advisor: Prof. Dafna Shahaf. One long paper accepted to the main conference of NAACL 2024.
- Oct 2020 Dec 2022: M.Sc in Computer Science, The Hebrew University, Israel. Advisor: Prof. Dafna Shahaf. GPA: 96.5/100. Two long papers were accepted to the main conference of EMNLP 2022. Selected to deliver graduation speech.
  - May 2022 Sep 2022: M.Sc Erasmus+ Exchange Program & Scholarship, The Technical University of Munich.
- Oct 2015 Mar 2019: B.Sc in Computer Science, The Hebrew University, Israel. GPA: 90.21/100, Magna Cum Laude.
  - Feb 2018 Jun 2018: Exchange Program & Scholarship, The University of Melbourne.
  - 2017 2019: Studied towards MBA in Big Data an excellence program for outstanding B.Sc students (B.Sc & MBA in only 4 years). Completed the 8 mandatory courses, GPA: 96.16/100.

## 2 Honors, Awards, Scholarships, Fellowships

- 2024 present: Fellowship for outstanding PhD candidates in AI and Data Science, The Planning & Budgeting Committee (PBC) of Council For Higher Education (CHE), Israel.
- 2022 present: MSc & PhD Scholarship Dafna Shahaf Hyadata-Lab, The Hebrew University, Israel.
- 2022: Erasmus+ Scholarship for honors students, Technical University of Munich, Germany.
- 2019: B.Sc in Computer Science Magna Cum Laude, The Hebrew University of Jerusalem, Israel.
- 2018: Scholarship for honors students, The University of Melbourne, Australia.
- 2013: Annual Excellence Tech Project Award, The Israeli Intelligence Corps, Commander of Unit 8200 (rank: Tat Aluf).
- 2012: Annual Excellence Team Award, The Israeli Intelligence Corps, Commander of R&D, Unit 8200 (rank: Aluf Mishne).

### 3 Peer-Reviewed Publications

- 2024: Visual Editing with LLM-based Tool Chaining: An Efficient Distillation Approach for Real-Time Applications
  - Authors: Oren Sultan, Alex Khasin, Guy Shiran, Asnat Greenstein-Messica, Dafna Shahaf.
  - Conference: EMNLP 2024 (R1: above acceptance threshold, R2: accept, R3: accept. Notification date: 01/10/24).
- 2024: ParallelPARC: A Scalable Pipeline for Generating Natural-Language Analogies.
  - Authors: Oren Sultan, Yonatan Bitton, Ron Yosef, Dafna Shahaf.
  - Conference: NAACL 2024 (main conference), ISCOL 2024.
- 2022: Life is a Circus and We are the Clowns: Automatically Finding Analogies between Situations and Processes.
  - Authors: Oren Sultan, Dafna Shahaf.
  - Conference: EMNLP 2022 (main conference).
- 2022: Breakpoint Transformers for Modeling and Tracking Intermediate Beliefs.
  - Authors: Kyle Richardson, Ronen Tamari, Oren Sultan, Reut Tsarfaty, Dafna Shahaf, Ashish Sabharwal.
  - Conference: EMNLP 2022 (main conference).

# 4 Professional Experience

- Mar 2024 Present: AI Researcher (Part-time Student Position), Lightricks.
- Oct 2023 Dec 2023: Co-founded and led speical forces of researchers and data scientists in the fields of NLP & IR, Unit 8200 (Captain in reserves).
- Aug 2023 Feb 2024: AI Researcher (Full-time Summer Intern), Lightricks.
  - Resulting in a research paper titled: "Visual Editing with LLM-based Tool Chaining: An Efficient Distillation Approach for Real-Time Applications" (under review). Successfully deployed into VideoLeap app.
- Mar 2023 Apr 2023: AI / NLP Visiting Researcher. Hosts: Prof. Frank Guerin (The University of Surrey), Prof. Chenghua Lin (The University of Sheffield).
- May 2022 Jul 2022: NLP Researcher, The Technical University of Munich Social Computing Lab (Prof. Georg Groh).
- Oct 2021 Present: AI/NLP Researcher, The Hebrew University, Israel. Advisor: Prof. Dafna Shahaf.
- Aug 2019 Sep 2020: Backend Software Engineer (Search), Algorithms group, Fiverr.
  - Tech Stack: Go, ElasticSearch, BigQuery, Redis, MySQL. Other: Docker/Kubernetes, Jenkins, RabbitMQ, Kafka, GitHub, Amazon cloud (AWS), Grafana, Graylog, Coralogix.
- Nov 2016 Dec 2017: Data Engineer Consultant, Madeira Data Solutions.
  - Consulting for top-notch Israeli hi-tech companies. Primarily deal with: problem solving, performance tuning, design and implementation, developing TSQL solutions for complicated logics over the database, implementation of HA solutions such as Always on, Mirroring, Replication, and BI SSIS.
- Jun 2014 Oct 2015: Data Engineer, MyThings.
  - MSSQL DWH DBA and Big Data Engineer. Tech Stack: MSSQL, HQL scripts (Hive), ElasticSearch, EXASOL.
- 2008 2013: MSSQL Data Engineer, Data Engineering Founder & Team Leader R&D, Unit 8200.
  - Led and found a team of seven soldiers, officers and consultants for MSSQL, that is responsible for developing applicative projects and the infrastructure of SQL Server in the unit.
  - Main Infra Project: developing Infrastructure for SQL server consolidation and developing database cloud services.
  - Additional responsibilities: Leader technical interviewer.

#### 5 Invited Talks

- Jun 2023: "Automatically Finding Analogies between Situations and Processes", MSc graduation ceremony, The Hebrew University, Israel.
- Mar 2023: "Analogies of Situations and Processes: Detection, Explanation, Generation", SheffieldNLP, The University of Sheffield, UK.
- Jan 2023: "Using LLMs for Natural-Language Analogies Generation", BIU-NLP, Bar Ilan University, Israel.
- Jan 2023: "Life is a Circus and We are the Clowns: Automatically Finding Analogies between Situations and Processes", The Hebrew University, Israel.
- Jan 2022: "Breakpoint Transformers for Modeling and Tracking Intermediate Beliefs", Aristo team, Allen Institute for AI (AI2), Seattle, USA.

### 6 Academic Activities

- TA: "self-paced introduction to data science" (67876) at the Center for Interdisciplinary Data-Science Research (CIDR), The Hebrew University, Israel. 2023 present.
- Conference Reviewer: ACL 2024

### 7 Miscellaneous

- Citizenships: Israeli, Portuguese.
- Languages: Hebrew (mother tongue), English (fluent), Spanish (intermediate), German (elementary).