Oren Sultan, CS PhD Candidate @HebrewU, Israel • AI Researcher @Lightricks • MSc Exchange Student & Scholarship @TUM, Germany • BSc Exchange Student & Scholarship @UniMelb, Australia • Ex-Unit 8200

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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

- **2024: Fellowship for outstanding PhD candidates in AI and Data Science**, The Planning & Budgeting Committee (PBC) of Council For Higher Education (CHE), Israel. **360K NIS for three years**.

- **2022 - present**: **MSc & PhD Scholarship** – Dafna Shahaf Hyadata-Lab, The Hebrew University, Israel.

- **2022: Erasmus+ Scholarship for honors students**, Technical University of Munich, Germany. **4K EUR for one semester**.

- **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. **5K USD for one semester**.

- **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 (under review).

- **2024**: ParallelPARC: A Scalable Pipeline for Generating Natural-Language Analogies.

  - **Authors**: **Oren Sultan**, Yonatan Bitton, Ron Yosef, Dafna Shahaf.
  - **Conference**: NAACL 2024 (main conference).

- **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).