# ALON JACOVI

#### Curriculum Vitae

#### Tel Aviv, Israel \( \phi \) alonjacovi@gmail.com

#### **EDUCATION**

Ph.D in Natural Language Processing and Machine Learning

2019-2023

Bar Ilan University

Advisor: Prof. Yoav Goldberg

Research Topic: Explainable Artificial Intelligence

M.Sc in Natural Language Processing and Machine Learning

2017-2019

Bar Ilan University

Advisor: Prof. Yoav Goldberg

Graduated *cum laude* with final grade 95.85.

Dissertation Topic: Understanding Convolutional Neural Networks for Text Classification

**B.Sc** in Computer Science

2014-2017

Bar Ilan University

Graduated *cum laude* with final grade 95.2.

Final Project: Deep Reinforcement Learning Agent for the AI-BIRDS Angry Birds Competition

#### **EXPERIENCE**

#### Research Intern at Google, Israel

May 2022-Mar 2024 (expected)

Consistency Team

Hosts: Dr. Roee Aharoni and Dr. Mor Geva

Topics: Evaluation of chain-of-thought verification methods, evaluation of tool-assisted complex reasoning strategies, and a user study of crowd-sourced evaluations of explanations.

## Research Intern at Google, Germany

Fall 2021

Trustworthy NLP Team

Hosts: Dr. Jasmijn Bastings and Dr. Katja Filippova

Topic: Diagnosing AI explanation methods with folk concepts of behavior.

#### Research Intern at the Allen Institue for Artificial Intelligence, USA

Winter 2020-2021

MOSAIC Team

Host: Dr. Swabha Swayamdipta

Topic: Contrastive explanations for model interpretability.

# Student Researcher at IBM Research, Israel

2016-2020

• Conversation and Language Team

Work on improving graph-based virtual dialogue assistants, based on in-production conversation logs that were escalated to a human agent.

• Machine Learning Technologies Team

Work on integration of non-differentiable systems in neural pipelines (e.g., knowledge bases and program interpreters in semantic parsing) for end-to-end learning.

#### Research Intern at RIKEN, Japan

Spring 2019

Imperfect Information Learning Team

Hosts: Dr. Gang Niu and Prof. Masashi Sugiyama

Topic: Scalable evaluation and improvement of Document Set Expansion via neural Positive-Unlabeled Learning.

### Diagnosing AI Explanation Methods with Folk Concepts of Behavior.

<u>Alon Jacovi,</u> Jasmijn Bastings, Sebastian Gehrmann, Yoav Goldberg, Katja Filippova. In JAIR 2023.

# Stop Uploading Test Data in Plain Text: Practical Strategies for Mitigating Data Contamination by Evaluation Benchmarks.

Alon Jacovi, Avi Caciularu, Omer Goldman, Yoav Goldberg.

In EMNLP 2023. (oral presentation)

### A Comprehensive Evaluation of Tool-Assisted Generation Strategies.

<u>Alon Jacovi</u>, Avi Caciularu, Jonathan Herzig, Roee Aharoni, Bernd Bohet, Mor Geva. In Findings of EMNLP 2023.

### Neighboring Words Affect Human Interpretation of Saliency Explanations.

<u>Alon Jacovi</u>\*, Hendrik Schuff\*, Heike Adel, Ngoc Thang Vu, Yoav Goldberg. In Findings of ACL 2023

# Human Interpretation of Saliency-based Explanation Over Text.

Hendrik Schuff\*, <u>Alon Jacovi</u>\*, Heike Adel, Yoav Goldberg, Ngoc Thang Vu. In ACM FAccT 2022.

#### Contrastive Explanations for Model Interpretability.

<u>Alon Jacovi</u>, Swabha Swayamdipta, Shauli Ravfogel, Yanai Elazar, Yejin Choi, Yoav Goldberg. In EMNLP 2021.

# Formalizing Trust in Artificial Intelligence: Prerequisites, Causes and Goals of Human Trust in AI.

Alon Jacovi, Ana Marasović, Tim Miller, Yoav Goldberg.

In ACM FAccT 2021.

#### Aligning Faithful Interpretations with their Social Attribution.

Alon Jacovi, Yoav Goldberg.

In TACL 2021.

# Towards Faithfully Interpretable NLP Systems: How Should We Define and Evaluate Faithfulness?

Alon Jacovi, Yoav Goldberg.

In ACL 2020.

#### Neural Network Gradient-based Learning of Black-box Function Interfaces.

<u>Alon Jacovi</u>\*, Guy Hadash\*, Einat Kermany\*, Boaz Carmeli\*, Ofer Lavi, George Kour, Jonathan Berant.

In ICLR 2019.

#### Understanding Convolutional Neural Networks for Text Classification.

Alon Jacovi, Oren Sar Shalom, Yoav Goldberg.

In BlackboxNLP @ EMNLP 2018. (oral presentation)

(\*) - equal contribution.

#### IN SUBMISSION

# Unpacking Human-AI Interaction in Safety-Critical Industries: A Systematic Literature Review

Tita A. Bach, Jenny K. Kristiansen, Aleksandar Babic, Alon Jacovi.

#### **PATENTS**

Computerized dialog system improvements based on conversation data. *Published*, 2022 Ofer Lavi, Alon Jacovi, David Amid, David Boaz, Inbal Ronen, Ateret Anaby-Tavor, Ori Bar El. US Patent: US20220059097A1

#### ACADEMIC SERVICE

Workshop organizer: Data Contamination Workshop (CONDA) 2024

Area Chair: ACL Rolling Review 2021 and 2022, ACL 2023

Reviewer: ACL 2020, HAMLETS 2020, EACL 2021, NAACL 2021, ACL 2021 (outstanding reviewer), EMNLP 2021, BlackboxNLP 2021, TRAIT 2022, BlackboxNLP 2022, HMCaT 2022, Open Mind 2022, NAACL 2024

NAACL 2024

Assistant Reviewer: IJCAI 2018, IJCAI 2019

#### INVITED TALKS

**DEEL & ANITI, Nov 2023:** What would a good explanation even look like?

DNV, Mar 2023: Formalizing Trust in Artificial Intelligence.

Institute for Trusted Intelligence in Society Workshop, Sep 2022: Formalizing Trust in Artificial Intelligence.

Trustworthy ML Reading Group, Sep 2022: Formalizing Trust in Artificial Intelligence.

**XAI Israel Meeting Group, May 2022:** Diagnosing AI Explanation Methods with Folk Concepts of Behavior.

Cambridge, May 2022: Diagnosing AI Explanation Methods with Folk Concepts of Behavior.

Harvard, Mar 2022: Diagnosing AI Explanation Methods with Folk Concepts of Behavior.

Oxford, Mar 2022: Diagnosing AI Explanation Methods with Folk Concepts of Behavior.

NEC Labs Europe, Mar 2022: Diagnosing AI Explanation Methods with Folk Concepts of Behavior.

Allen Institute for Artificial Intelligence, Jun 2021: Formalizing Trust in Artificial Intelligence.

Microsoft, Oct 2020: Formalizing Properties of Interpretability in NLP.

# HONORS AND SCHOLARSHIPS

$2021 \\ 2019-2023 \\ 2016 \\ 2016 \\ 2015$	Nadav Award for Excellence in Doctoral Studies The President's Scholarship for Outstanding Doctoral Fellows The Miryam and Ezra Sofer Scholarship for Excellent Students Dean's Honors The Grace Shua and Jacob Ballas Scholarship
$2015 \\ 2015$	The Grace Shua and Jacob Ballas Scholarship Dean's Honors

#### **LANGUAGES**

Native	Hebrew
Fluent	English
Conversational	Japanese