# ALON JACOVI

#### Curriculum Vitae

Givatayim, Israel  $\diamond$  (+972) 050-9297995  $\diamond$  alonjacovi@gmail.com

## **EDUCATION**

Ph.D in Natural Language Processing and Machine Learning

2019-Present

Bar Ilan University

Advisor: Prof. Yoav Goldberg

Research Topics: Explainable Artificial Intelligence, Learning from Imperfect Supervision

M.Sc in Natural Language Processing and Machine Learning

2017-2019

Bar Ilan University

Advisor: Prof. Yoav Goldberg

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, Germany

Fall 2021—Current

Trustworthy NLP Team

Advisor: Dr. Jasmijn Bastings

Research Intern at the Allen Institue for Artificial Intelligence, USA

Oct 2020-Mar 2021

MOSAIC Team

Advisor: 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. Work published in KDD Converse 2020.

• 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. Work published in ICLR 2019.

#### Research Intern at RIKEN, Japan

Spring 2019

Imperfect Information Learning Team

Advisors: Dr. Gang Niu and Prof. Masashi Sugiyama

Topic: Scalable Evaluation and Improvement of Document Set Expansion via Neural Positive-Unlabeled Learning.

#### **PUBLICATIONS**

#### 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.

# Scalable Evaluation and Improvement of Document Set Expansion via Neural Positive-Unlabeled Learning.

Alon Jacovi, Gang Niu, Yoav Goldberg, Masashi Sugiyama.

In EACL 2021.

# Aligning Faithful Interpretations with their Social Attribution.

Alon Jacovi, Yoav Goldberg.

In TACL 2021.

### Amnesic Probing: Behavioral Explanations with Amnesic Counterfactuals.

Yanai Elazar, Shauli Ravfogel, Alon Jacovi, Yoav Goldberg.

In TACL 2021.

#### Exposing Shallow Heuristics of Relation Extraction Models with Challenge Data.

Shachar Rosenman, Alon Jacovi, Yoav Goldberg.

In EMNLP 2020.

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

Alon Jacovi, Yoav Goldberg.

In ACL 2020.

### Improving Task-Oriented Dialogue Systems in Production with Conversation Logs.

<u>Alon Jacovi</u>\*, Ori Bar El\*, Ofer Lavi, David Boaz, David Amid, Inbal Ronen, Ateret Anaby-Tavor. In KDD Converse @ KDD 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.

# Learning and Understanding Different Categories of Sexism Using Convolutional Neural Network Filters.

Sima Sharifirad, Alon Jacovi, Stan Matwin.

In Widening NLP @ ACL 2019. (extended abstract)

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

Alon Jacovi, Oren Sar Shalom, Yoav Goldberg.

In BlackboxNLP @ EMNLP 2018. (oral presentation)

#### **PATENTS**

# Computerized dialog system improvements based on conversation data.

Filed, 2020

Alon Jacovi, Ateret Anaby-Tavor, David Amid, David Boaz, Inbal Ronen, Ofer Lavi, Ori Bar El.

US Patent: P202001942 US01

#### ACADEMIC SERVICE

Area Chair: ACL Rolling Review 2021

Reviewer: ACL 2020, HAMLETS 2020, EACL 2021, NAACL 2021, ACL 2021 (outstanding reviewer),

EMNLP 2021, BlackboxNLP 2021

Assistant Reviewer: IJCAI 2018, IJCAI 2019

#### **TALKS**

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

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

ACLi, Aug 2020: Towards Faithfully Interpretable NLP Systems: How Should We Define and Evaluate Faithfulness?

ISCOL, Sep 2018: Understanding Convolutional Neural Networks for Text Classification.

# HONORS AND SCHOLARSHIPS

2019–2023 2016 2016 2015 2015	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 Dean's Honors
2015	Dean's Honors

## LANGUAGES

Native	Hebrew
Fluent	English
Conversational	Japanese