

Alireza Mahmoudi Kamelabad

COMPUTATIONAL LINGUIST · COGNITIVE LINGUIST

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Education

PH.D. IN LINGUISTICS

Norwegian University of Science and Technology (NTNU)

- Marie Skłodowska-Curie ITN on Early Language Development in the Digital Age (e-LADDA).
- Child-personalized adaptive language teaching through interactive social robot.
- To start in October 2020.

Trondheim, Norway

Oct. 2020 - Oct. 2023

M.Sc. IN COGNITIVE SCIENCE (LANGUAGE AND MULTIMODAL INTERACTION)

CIMeC - Center for Mind/Brain Studies

- Thesis: *Computational Models of Word Learning from Visual Context*

Rovereto, Italy

Sep. 2018 - Oct. 2020

M.A. IN HUMAN-COMPUTER INTERACTION

University of Trento

- Affective Computing
- Participatory Design
- User-Centered Design

Trento, Italy

Sep. 2017 - Aug. 2018

B.Sc. IN COMPUTER SCIENCE

Shahid Beheshti University

- Theoretical and Practical Computer Science
- Advanced Mathematics

Tehran, Iran

Sep. 2011 - Feb. 2017

Work Experience

ASSOCIATE RESEARCHER

Furhat Robotics

- Teaching language to children through social robots.
- To start in October 2020

Stockholm, Sweden

Oct. 2020 - Oct. 2023

GUEST RESEARCHER

Tilburg University – Department of Cognitive Science and Artificial Intelligence

- Member of Computational Linguistics Group of Tilburg University.
- Conducting research about the role of Adjectives in Computational Models of Language Acquisition.

Tilburg, Netherlands

Mar. 2020 - Sep. 2020

TEACHER ASSISTANT

Tilburg University

Helping teachers with preparing the course material, correcting the exams, and give technical seminars to students. – *Instructor:*

dr. Wendy Powell

Tilburg, Netherlands

Dec. 2019 - Mar. 2020

RESEARCH INTERNSHIP TRAINEE

Tilburg University – Department of Cognitive Science and Artificial Intelligence

- I was involved in a research project about Computational Modelings of Language Acquisition, and the analysis of such models with deep learning methods. This experience is part of my master's degree curriculum. – *Supervisor: dr. Afra Alishahi*

Tilburg, Netherlands

Oct. 2019 - Feb. 2020

RESEARCH AND INNOVATION MANAGER

Silk Road

- Development and Design of an online platform for foreign language teaching system. Targeting the K12 children.
- Prototyping the system.
- Research and preparation of the Business Plan document, in order to assess the opportunities and threats of the project, also to assess the profit it will have.

Tehran, Iran

Nov. 2016 - Aug. 2017

TEACHER ASSISTANT IN IMAGE PROCESSING

Shahid Beheshti University

Helping the teacher in teaching the image processing course.

Tehran, Iran

Sep. 2015 - Feb. 2016

Research & Publication

CURIOSITY IN SELF-SUPERVISED ACTIVE WORD LEARNING

Potsdam, Germany

Proceedings of The 26th Architectures and Mechanisms for Language Processing Conference (AMLaP 2020)

September, 2020

- Cognitive models of child word learning in general, and cross-situational models in particular, characterize the learner as a passive observer. But children are curious and actively participate in verbal and non-verbal communication, and often introduce new topics which parents are likely to follow up (Bloom et al., 1996). We investigate the potential impact of curiosity on word learning through a series of computational experiments. Our simulation results show that a curious learner who actively and curiously influences the language input it receives learns faster and more robustly, and reaches better performance.
- Other Authors: [Lieke Gelderloos](#), [Afra Alishahi](#)
- [Read more](#)

COMPUTATIONAL MODELS OF WORD LEARNING

Tilburg(NL) – Rovereto(IT)

Master's Thesis | Tilburg University – Trento University

June, 2020

- My master's thesis looks at the computational models of lexical acquisition and investigates the performance of Adjective learning in comparison to Nouns. I investigate the differences of mentioned in Cognitive linguistics and Theoretical Linguistics which are or are not considered in these models, which finally lead to the performance of these models on Adjectives.
- Supervisor: [dr. Aurelie Herbelot](#), Co-Supervisor: [dr. Afra Alishahi](#)

ACTIVE WORD LEARNING THROUGH SELF-SUPERVISION

Tilburg, Netherlands

Proceedings of the 42nd Annual Conference of the Cognitive Science Society

Jan. 2020

- Accepted for Oral Presentation at CogSci 2020
- We presented a computational study of cross-situational word learning to investigate whether a curious word learner who actively influences linguistic input in each context has an advantage over a passive learner. Our computational model learns to map words to objects in real images by self-supervision through simulating both word comprehension and production.
- Other Authors: [Lieke Gelderloos](#), [Afra Alishahi](#)
- [Read more](#)

THE EFFECT OF SUBJECTIVITY FEATURES ON COMPLEX WORD IDENTIFICATION TASK

Rovereto, Italy

Individual Research on Text Simplification | CIMeC

Mar. 2019

- I investigate and evaluate the effect of subjectivity features of word complexity for Non-native language learners of English, on Complex Word Identification task of Lexical Simplification pipeline.
- Supervisor: [dr. Carlo Strapparava](#)

EYE TRACKING AS A DIAGNOSTIC TOOL FOR ADHD

Povo, Italy

Research proposal in Affective Computing

Mar. 2018

- A research through how to diagnose ADHD using eye tracking. Based on f-MRI feedback technique used as a diagnosis and treatment for ADHD.
- Instructor: [prof. dr. Nicu Sebe](#)

PROTOTYPING A SOLUTION FOR COMMUNICATION PROBLEMS IN SCHOOLS OF PERGINE

Pergine, Italy

Project in Participatory and User-centered Design | Elementary School G. Rodari (Pergine) & University of

Trento

Dec. 2017

- Instructors: [dr. Vincenzo D'Andrea](#) – [prof. Antonella De Angeli](#)

MULTITHREADING IN ANDROID, LIBRARIES AND POSSIBLE OPTIMIZATIONS

Tehran, Iran

Bachelor Thesis | Shahid Beheshti University

Dec. 2016

- Supervisor: [dr. Mahmoud Fazlali](#)

Skills

SKILLS

RESEARCH METHODS	Computational Modeling, Deep Learning, Language Processing					
WRITING & FORMATTING	LaTeX, Markdown, Microsoft Office Suite, Libre Office					
PROGRAMMING	Python	C	MATLAB	R		
	Professional	OS Programming	Computer Vision	Research Essentials		
LIBRARIES & TOOLKIT	PyTorch, NLTK, Psychtoolbox					
LANGUAGES	ENGLISH	ITALIAN	PERSIAN	AZERBAIJANI	RUSSIAN	ARABIC
	C1	C1	Native	Native	A1	Intermediate

INTERESTS

RESEARCH Artificial Intelligence, Computational Linguistics, Language Acquisition, Cognitive Science

GOAL Implimenting the Theory of Mind in artificial agents.

Teaching Experience

TEACHING ASSISTANT

2014-2015 **DIGITAL DESIGN AND COMPUTER ARCHITECTURE**, At Shahid Beheshti University for two semesters.

Tehran, Iran

2013 **FUNDAMENTALS OF COMPUTER AND PROGRAMMING**, At Shahid Beheshti University for one semester teaching introduction to computer programming with C language.

Tehran, Iran

Participation and Attendance

THE 26TH ARCHITECTURES AND MECHANISMS FOR LANGUAGE PROCESSING CONFERENCE – AMLAP 2020

Potsdam, Germany

University of Potsdam

September 3rd – 5th, 2020

- Having an abstract in the proceedings and attending the conference.

42ND ANNUAL VIRTUAL MEETING OF THE COGNITIVE SCIENCE SOCIETY – CogSci 2020

Toronto, Canada

University of Toronto

July 30th, 2020

- Attending the conference and answering questions about the presentation we had about our work.

EXPERIMENTAL METHODS IN LANGUAGE ACQUISITION RESEARCH 2020

Online, Netherlands

Utrecht University

April 16th to 17th, 2020

- Attending the Tutorials of:
 - Statistics with R
 - ERP
 - Ethics and privacy
 - Automatic speech recognition
 - CHILDES

COMPUTATIONAL LINGUISTICS IN THE NETHERLANDS 30, ATTENDER AND ORGANIZER

Utrecht, Netherlands

Utrecht University

January 30th, 2020

- Conference Attendance
- Student Volunteer

WINTER SCHOOL: "EDUCATION AS A COMMON GOOD"

Trento, Italy

University of Innsbruck, University of Bolzano, and University of Trento

December 4th to 6th, 2017

- Introduction to Commons and Education
- Introduction to Ecologies of Learning
- Conceptual Design and Prototyping
- Effectiveness, Efficiency and Usability
- Visual, Audio or Tangible Prototype Creation
- Industry and UX Design Research Projects

Volunteer Services

VOLUNTEER STUDENT AT CLIN30 CONFERENCE

Utrecht, Netherlands

Computational Linguistics in the Netherlands 30 | Utrecht University

30 Jan 2020

I worked as a student volunteer helping in the organization of this conference. – *reference: Prof. Jan Odijk*

SECRETARY & MEMBER OF COMPUTER SCIENCE SCIENTIFIC ASSOCIATION (CSSA)

Tehran, Iran

Department of Computer Science | Shahid Beheshti University

Oct. 2011 - Jan. 2014

- (Jan 2012 - Jan 2014) Secretary: I won the CSSA election of the year 2012 as the president and secretary. During two years of my experience as the secretary, I achieved management, event planning, seminar planning skills, and I specially enhanced my professional communication ability.
- (Oct 2011 - Jan 2012) Member: As a volunteer regular member of CSSA I was working as volunteer staff in Conferences and Seminars. I was also participating in all the events managed by the association.

PRIMARY AND HIGH SCHOOL TEACHER AT A SCHOOL SPECIAL TO CHILD LABOUR

Tehran, Iran

Farahzad Science House | SOSAPOVERTY

Oct. 2012 - Mar. 2014

I have been part of this charity as a teacher for the labour children, who are forced to work intolerable jobs (as worker or peddler alongside busy streets) with no access to health care, education, or food.

Honors & Awards

FUNDS

2018 **FULL SCHOLARSHIP**, Cognitive Science master's merit scholarship winner from University of Trento

Trento, Italy

2017 **SCHOLARSHIP**, Human-Computer Interaction master's merit tuition fee waver from University of Trento

Trento, Italy

AWARDS

Extracurricular Activity & Membership

MEMBER

Seattle, WA 98105

Cognitive Science Society

Jan. 2020 - PRESENT

- A regular member of Cognitive Science Society.
- Oral Presentation of Active Word Learning in CogSci 2020 Conference.

DANCE INSTRUCTOR & DANCER

Trento, Italy

33 Trent-in-Folk

Sep. 2017 - PRESENT

- In this dance group we organize the social dance group sessions of neo-classic folk dances known as BalFolk. I am more experienced with these dances: Mazurka, Scottish, Iranian, Valhermeil, and Chappeloise.

References

References Available upon request