

Education

Ozyegin University

M.Sc. in Artificial Intelligence, GPA: 4.0/4.0

Istanbul, Turkey

Graduation: August 2023

- **Research Areas:** Human-Robot/Agent Interaction, Multi-Agent Systems, Algorithmic Game Theory, Affective Computing
- **Thesis:** A Comprehensive Human-Agent Negotiation Framework: Preferences, Emotion & Interaction

Ozyegin University

B.Sc. in Computer Science, Minor: Electrical-Electronics Engineering

Istanbul, Turkey

Graduation: January 2020

Research Experience

Ozyegin University

Research Assistant at [OZU Interactive Intelligence Systems Lab](#). PI: [Dr. Reyhan Aydoğan](#)

Istanbul, Turkey

August 2018–Current

- Developing [human-robot negotiation](#) & multi-agent pathfinding frameworks to investigate the differences in optimal behaviors & human preferences through negotiation protocols & strategies.
- Responsible for managing laboratory operations and mentoring new graduate members & undergraduate students.

Technische Universiteit Delft

Research Intern at [Interactive Intelligence Group](#), PI: [Prof. Catholijn Jonker](#)

Delft, NL

July–October 2022

- Developed a comprehensive human-agent interaction framework that facilitates various communication channels (e.g., speech, facial expression & gestures) tailored for social humanoid robots to enhance collective decision-making.

University of Cambridge

Research Intern at [Affective Intelligence & Robotics Lab.](#), PI: [Prof. Hatice Güneş](#)

Cambridge, UK

January–April 2022

- Developed a personalized strategy that utilized continual learning for recognizing participants' facial expressions with the Pepper robot to investigate the impact of emotion-aware strategies in human-robot negotiations.

Brown University

Research Intern at E-GLAMOR Group, PI: [Prof. Amy Greenwald](#)

Providence, US

June–August 2021

- Developed a supply chain manager agent responsible for production planning, bilateral agreements, risk management, & market analytics, designed to maximize long-term profits & social welfare in competitive markets
- Won runner-up prizes in the standard & collusion leagues of [the Supply-Chain Management League in IJCAI 2021](#).

Oregon State University

Research Scholar (REU) at [Collaborative Robotics & Intelligent Systems Institute](#)

Oregon, US

June–August 2018

- Developed a 3D printing path optimizer utilizing machine learning & traveling salesman problem-solving methods (e.g., Lin-Kernighan & Christofides algorithms), which successfully reduced printing time by 20-25% & costs by 5-10%, depending on the types of prints & materials, under the supervision of [Dr. Dogan Yirmibesoglu](#).

Publications (JOURNAL: J, CONFERENCE: C, BOOK CHAPTER: BC, FOR DETAILS: [g](#) GOOGLE SCHOLAR)

- [J4] - [O. Keskin](#), F. Canturk, C. Eran & R. Aydoğan, 2023, “[Decentralized Multi-Agent Path Finding Framework and Strategies Based on Automated Negotiation](#)”, Autonomous Agents and Multi-Agent Systems, [Under Review].
- [J3] - A. Doğru, [O. Keskin](#) & R. Aydoğan, 2023, “[Taking into Account Opponent’s Arguments in Human-Agent Negotiations](#)”, ACM Transaction on Interactive Intelligent Systems, [Accepted].
- [J2] - [O. Keskin](#), B. Buzcu & R. Aydoğan, 2023, “[Conflict Based Negotiation Strategy for Human-Agent Negotiation](#)”, Applied Intelligence, Springer.
- [J1] - R. Aydoğan, [O. Keskin](#) & U. Çakan, 2022, “[Would You Imagine Yourself Negotiating With a Robot, Jennifer? Why Not?](#)”, in IEEE Transactions on Human-Machine Systems, vol. 52, no. 1, pp. 41-51.
- [C5] - [O. Keskin](#), S. Akay, A. Doğan, B. Koçyiğit, J. Kanero, & R. Aydoğan, 2023, “[Effects of robot appearance in human-robot negotiation](#)”, [Submitted].
- [C4] - U. Çakan, [O. Keskin](#) & R. Aydoğan, 2023, “[Effects of Agent’s Embodiment in Human-Agent Negotiations](#)”, 23rd ACM International Conference on Intelligent Virtual Agents (IVA’23).
- [C3] - G. Yesevi, [O. Keskin](#), A. Dogru & R. Aydoğan, 2022, “[Time Series Predictive Models for Opponent Behavior Modeling in Bilateral Negotiations](#)”, The 24th International Conference on Principles and Practice of Multi-Agent Systems (PRIMA’22)
- [C2] - [Second Best Paper], C. Eran, [O. Keskin](#), F. Canturk, & R. Aydoğan, 2021, “[A Decentralized Token-Based Negotiation Approach for Multi-Agent Path Finding](#)”, 18th European Conference on Multi-Agent Systems (EUMAS’21), Springer, pp. 264–280.
- [C1] - [O. Keskin](#), U. Çakan, & R. Aydoğan, 2021, “[Solver Agent: Towards Emotional and Opponent-Aware Agent for Human-Robot Negotiation](#)”, 20th International Conference on Autonomous Agents and Multi-Agent Systems, pp. 1557–1559.
- [BC1] - R. Aydoğan, [O. Keskin](#), & U. Çakan, 2021, “[Let’s negotiate with Jennifer! Towards a Speech-Based Human-Robot Negotiation](#)”, Advances in Automated Negotiations, Springer, pp. 3–16.

Awards & Scholarships

- **Richard E. Merwin Student Scholarship by IEEE Computer Society** 2022
- **Best Research Assistant** at Graduate School of Engineering and Science of Özyeğin University 2022
- **Second Best Paper** at 18th European Conference on Multi-Agent Systems (EUMAS) 2021
- **Ranked 2nd** at both standard & collusion tracks of the **Supply-Chain Management League** at IJCAI 2021
- **Ranked 1st** at **IBM Watson's & RPI's Human Multi-Agent Immersive Negotiation Challenge** at IJCAI 2020
- **Research Scholarship** from **The Scientific & Research Council of Turkey** - Grant number: 118E197 2020–2022
- **Graduate Fellowship** for M.Sc in Artificial Intelligence at Ozyegin University 2020–2022
- **Research Scholarship** for **REU Program** from the American National Science Foundation 2018
- **Ranked 2nd** at **Invent Analytics' Data Science Hackathon** named “AlgoRun” 2018

Skills

- **Programming:** Python, Java, SQL, R, Matlab
- **Technologies:** Pytorch, Tensorflow, AWS, ROS, CPLEX

Languages

- **English:** IELTS: 7.5 (R:8, L:8, W:6.5, S:6.5)
- **Turkish:** Native speaker

Teaching Assistantship

- CS 551: Introduction to Artificial Intelligence Spring 2021, 2022 & 2023
- SEC 405: Artificial Intelligence: Impact on Humanity, Society, and Business Spring 2021 & 2023
- CS 202: Database Management Systems Spring 2022
- CS 103: Introduction to Computer Programming for Engineers Fall & Spring 2020

Work Experience

Fit Start-Up Factory

Software Engineer

Istanbul, Turkey

May–October 2016

- Developed the software infrastructure of “Openfab”, Turkey’s first hardware acceleration and maker space.

Intertech

Intern at R&D Department

Istanbul, Turkey

June–August 2015

- Developed “Interview 4.0” project, which transforms the conventional job interview steps to an automated and candidate-oriented process in predefined periods as it reduces its cost from \$60/15 hours to \$8/2 hours.

Vestel

Intern at R&D Center

Istanbul, Turkey

June–August 2014

- Developed a machine vision algorithm that can control the production quality of the TV panels in 20–40 milliseconds.

Outreach & Extracurricular Activities

- **Reviewer** at ECAI'23, AAMAS'21 & EUMAS'21
- **Secretary & Board Member** at **IEEE Computer Science Society Turkey Chapter** 2023 –2025
- **Organizer** at **14th Automated Negotiating Agents Competition (ANAC)** at AAMAS 2023 2023
15 teams competed with each other from 11 different countries.
- **Organizing Committee Member** at **7th Turkish Science Academy Machine Learning Summer School** 2022
+750 attendees completed the summer school.
- **Volunteer Team Member** at IJCAI (2021, 2022), AAMAS (2021), EUMAS (2021) & ACII (2021) 2021–2022
Selected most active volunteer at IJCAI'21 & Co-Organizer of Socializing Session at EUMAS'21.
- **President** at Association of Ozyegin University Student Clubs 2016–2018
Responsible for 51 student clubs and organized +150 local and 12 national events.
- **Chair** at IEEE Turkey Student Branches Women in Engineering (WIE) 2015–2016
Developed multiple projects to support women's education in STEM & responsible for the 62 IEEE WIE Societies in Turkey.