



# Özgür Yüksel

## M.Sc.

My passion for exploring the nature and understanding my place within it drives me as a dedicated student of natural sciences.

With the support of my loving family and outstanding teachers,  
I am endlessly intrigued and motivated to pursue my interests...

## Expertise

Genetics & Bioengineering

Biotechnology

Evolutionary Game Theory

Eco-Evolutionary Dynamics

## Work Experience

2016 Summer

GENETIKS Disease Diagnosis  
Center | Istanbul

Internship at Molecular Genetics  
Laboratory

2013-2015

Riot Games | Istanbul

Professional E-Sports Player

## Certifications

Duolingo English Certificate  
Advanced, Score 135

Driving License

Shodan in Aikido, Certified by  
Hombu Dojo Tokyo, Japan

## Contact

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Email

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## Academic Experience

2018 July - 2021 December

Yeditepe University | Istanbul

**Biotechnology MSc**

I conducted a study on the eco-evolutionary dynamics of microbial populations in partnership with the *Systems Biology and Bioinformatics group*. I successfully defended my thesis, "Game-Theoretical Analysis of Cooperation and Cheating in Lipase-Producing *Yarrowia lipolytica* Subcultures" [[Link](#)]. Where I have constructed a common goods game and devised a method for analyzing the evolutionary pressures in fermentation systems.

2012 September - 2017 February

Yeditepe University | Istanbul

**Genetics and Bioengineering BSc**

I have been introduced to evolutionary games by Dr. Emrah Nikerel. For my Bsc. project we have constructed a lattice game in combination with Lewis signaling theory to interpret the mechanisms of communication within biofilm community. In this project, I created both spatial stochastic and non-spatial deterministic models to represent electrical signaling between Interior (Sender) and Peripheral (Receiver) bacteria in a biofilm community.

2007 September - 2011 June

Istek Acıbadem High School | Istanbul

**High School of Science**

## Publications & Presentations

**Pending Publication (Preprint available upon request)**

Yuksel, O. & Nikerel, E. Game Theoretical Analysis of Cooperation and Cheating Among Lipase Producing *Candida rugosa* Sub-Cultures

**2022 Sept - Oral Presentation at Ecology and Evolutionary Biology Symposium**

Middle East Technical University | Ankara

Yuksel, O. (2022) Game theoretical analysis of cooperation and cheating among lipase producing *Yarrowia lipolytica* sub-cultures.

**2019 June - Poster Presentation at Health Informatics and Bioinformatics Symposium**

Biomedicine and Genome Center | Izmir

Yuksel, O., & Nikerel, E. (2019) Honesty in Communication - Game Theoretical Analysis of Bacterial Signaling

## Interests

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Depth Psychology

Philosophy of Mind

Meditation & Pranayama

Competitive E-sports

Running

Aikido

## Online Courses

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○ 2023

University of Sydney | Coursera

**Introduction to Calculus**

○ 2023 May

Sante Fe Institute | Complexity Explorer

**Dynamical Systems and Chaos**

○ 2022 September

Georgia Tech | Udacity

**Reinforcement Learning**

○ 2022 March

Stanford | Coursera

**Machine Learning**