Ayse Sila Okcu

Newnham College CB3 9DF Cambridge/UK
aso32@cam.ac.uk | +4407555876021

## Education

**University of Cambridge**                                               Cambridge/UK
*PhD in Engineering*                                                    *2024-Present*
I recently started doing a PhD in the Electrical Engineering Division of the University of Cambridge under the Supervision of Prof. Ozgur Baris Akan. My research interests include communication technologies; neural coding, computations and networks.
*Honours & Awards:*

- *Cambridge Trust&Newnham College Scholarship:* Full tuition waiver including maintenance fees for my PhD studies in the University of Cambridge.

**Koç University**                                                   Istanbul, Türkiye
*B.S. in Electrical and Electronics Engineering,* 3.8/4                *06.2019-06.2024*
*B.S. in Mathematics,* 3.35/4                                         *03.2021-06.2024*
*Honours & Awards:*

- *Amgen Scholar:* Chosen as Amgen Scholar which is a highly prestigious program with 3.4% acceptance rate that provides opportunities for young scientists to conduct hands-on research at leading institutions worldwide.
- *Anatolian Scholarship:* Full tuition waiver for studying in Koç University, Türkiye.
- *Turkish Government High Honour Scholarship:* Awarded based on ranking 66th in National University entrance exam among 2.5 million participants.

**Ankara Science High School**                                        Ankara/Türkiye
*High School Degree*                                                     *2015-2019*
*Honours & Awards:*

- *Akdeniz University Math Olympiads:* Awarded with golden medal in National Math Olympiads, 2018.

## Experience

**University of Cambridge**                                            Cambridge, UK

- *Treasurer of Newnham College MCR*                                  *11.2024-Present*
Working as the treasurer of postgraduate committee in Newnham College, Cambridge and managing the account and balances for events.
- *Teaching Assistant*                                                *02.2025-05.2025*
Supervising 3rd year undergraduate students for 3B2 Integrated Digital Electronics module in lent'25 term.

**Koç University**                                                   Istanbul, Türkiye

- *Research Assistant*                                                 *4.2023-06.2024*
Worked as undergraduate research assistant under the supervision of Prof. Murat Kuscu with a focus of pulse shape optimization for microfluidic molecular communications.

- *Research Assistant*          *09.2022-12.2023*

Worked as undergraduate research assistant under the supervision of Prof. Ozgur Baris Akan for understanding molecular communication techniques and for improving them. As a result of the conducted research a paper named "Odor-Based Molecular Communications: State-of-the-Art, Vision, Challenges, and [Frontier] Directions" is published.

- *Teaching Assistant*          *02.2023-06.2023*

Worked as undergraduate teaching assistant for ENGR200 Probability for Engineers course in Spring'23 semester.

- *Teaching Assistant*          *09.2022-02.2023*

Worked as undergraduate teaching assistant for INDR201 Discrete Mathematics and Its Applications course in Fall'22 semester.

- *Student Mentor*          *09.2021-06.2024*

Mentorship to new coming students for classes and orientation.

## CAREX-AI          California, USA

- *Artificial Intelligence Intern*          *03.2024-07.2024*

Worked as an intern in the project of AI-powered, video-based software generation as a medical device platform that transforms any camera-equipped device into a regulatory vital sign monitoring solution.

## Bluearf          Istanbul, Türkiye

- *Data Analyst Intern*          *09.2023-11.2023*

Processed the yearly reports and social media data of top companies of Türkiye and analysed the information of their performances regarding sustainability and sustainable development goals.

## Ludwig Maximillians Universität Munich          Munich, Germany

- *AMGEN Scholar, Summer Intern*          *07.2023-09.2023*

Completed compulsory summer internship at the Bernstein Centre for Computational Neuroscience. Worked on conducting and modelling colour vision experiments to explain the link between neural firings in primary visual cortex and colour discrimination effects as a member of the research group of Prof. Dr. Thomas Wachtler and present the research results in the annual Cambridge Poster Symposium.

## Unicourse          Istanbul, Türkiye

- *Content Creator*          *2021-2023*

Prepared lectures for math/engineering courses such as Probability and Statistics for Engineers, Calculus, Logic Theory in Unicourse company.

## ASELSAN          Ankara, Türkiye

- *Summer Intern*          *08.2022-09.2022*

Completed compulsory summer internship at the REHIS/ASELSAN under the Airborne Platform Radar department.

## Skills and Interests

*Technical*: Python, SQL, Java, C, C++, MATLAB, VHDL

*Extracurricular and Research Studies*: Neural Computations, Molecular Communications, Numerical Modelling, Estimation, Deep Learning, Computer Vision, Psychophysics, Population Coding

*Languages:* Turkish (Native), English (Advanced), French (Elementary), German (Elementary)