Rumeysa Hanife Kars

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EDUCATION

Istanbul Medipol University — Istanbul, Turkey
Bachelor of Science in Biomedical Engineering (GPA:3.37/4.00) — *Sep. 2017- July 2022*

- **Learned Programmes and Languages** - Mimics, LTSpice, SPSS, AutoCAD, Python,R, MATLAB, C, C++, HTML/CSS,
- **Some Relevant Courses** - Cellular and Molecular Biology, Probability and Random Variables, Programming, Applied Statistics, Introduction to Computational Biophysics, Protein: Structure and Function, Physiology, Biomaterials, Linear Algebra and Differential Equations.

Princeton University — New Jersey, United States
Summer School in Biomedical Engineering — *June 2020 - Aug. 2020*

- **Lecture** - Physics of Life and Biophysics
- **Learned Topics** - Single-molecule Biophysics, Collective Phenomena, Neuroscience, and Machine Learning.

EXPERIENCE

Harvard University — MA, United States
Student Trainee — *Feb. 2022 - Present*

- Having experiences with Harvard University faculty as taking educational courses in an extensive and multidisciplinary curriculum under the Aspire Leaders program.

TUBITAK (Turkish Scientific and Technological Research Institution) — Istanbul, Turkey
Engineering Project Coordinator — *May 2021 - Present*

- For the first time, the effect of membrane and myristoylation on the activation mechanism of ARF(ADP ribosylation factor) have been examining using computational methods which will help the treatment of ARF-induced cancer.

Istanbul Medipol University — Istanbul, Turkey
Undergraduate Teaching Assistant — *Feb. 2020 - Present*

- Assisting advisors in lectures and answering the questions of students in several lectures. (Calculus, General Chemistry, Introduction to Computational Biophysics and Programming.)

Istanbul Medipol University — Istanbul, Turkey
Undergraduate Research Assistant — *March 2020 - Present*

- Having experience at Sensoy Computational Biophysics Lab about Molecular Dynamics Simulations, Computational Biology with utilizing several softwares and tools like VMD, PyMOL, CHARMM-GUI, Schrodinger on Ubuntu operating system.

Koc University — Istanbul, Turkey
Undergraduate Research Assistant — *June 2021 - Feb. 2022*

- Data Science and Machine Learning project under the supervision of Erdem Yoruk, PhD and Ali Hurriyetoglu, PhD at one of the best university in Turkey.

Izmır Biomedicine and Genome Center — Izmır, Turkey
Undergraduate Research Assistant — *Aug. 2021 - Jan. 2022*

- Project titled "Radiation Types and their Analysis on Several Organisms" with Athanasia Pavlopoulou, PhD.

ASELSAN (Turkish Military Electronic Industries) — Ankara, Turkey
Intern — *Aug. 2021 - Sep. 2021*

- Creating algorithms for AED (Automatic External Defibrillator) machine with implementing into MATLAB to investigate the situation of heart under the supervision of Tuna Orhanli, PhD.

University of Pittsburgh   Pittsburgh, United States
Undergraduate Research Assistant   *June 2021 - Aug. 2021*
- "PerturbNet:This software implements the statistical methods for learning gene networks underlying clinical phenotypes using SNP perturbations" named project has been studied with Hatice Ulku Osmanbeyoglu, PhD.

TUBITAK (Turkish Scientific and Technological Research Institution)   Istanbul, Turkey
Intern   *June 2020 - Jan. 2021*
- Working with Prof. Dr. Serdar Durdagi (Durdagi Lab) in the project "Virtual scanning of molecule libraries against SARS-CoV2" as both scholarship holder and researcher intern by TUBITAK to be assisted during 6 months.

Sabanci University   Istanbul, Turkey
Undergraduate Research Assistant   *June 2019 - Aug. 2019*
- Working with Dr. Ogun Adebali about DNA Damage and Next Generation Sequencing methods to create a DNA Repair Database.

PUBLICATIONS
- Analysis of Mutated RNA-Type Breast Cancer Data with Machine Learning Methods [1]   *Sep. 2021*

HONORS & AWARDS
- TUBITAK (Turkish Scientific and Technological Research Institution) has supported my project "A New Approach to the Activation Mechanism of ADP-ribosylation factor (ARF)" within the program of 2209-A.

- Istanbul Medipol University Comprehensive Scholarship (2017-2022): Full tuition waiver and stipend during the BSc program.

- Participation to ESCICONF 2022 - International Conference On Emerging Sources In Science.

SELECTED PROJECTS
- A New Approach to the Activation Mechanism of ADP-ribosylation factor (ARF)   *January, 2021*

- Virtual Scanning of Molecule Libraries Against SARS-CoV2   *June, 2020*

- DNA Repair Database [2] (Website).   *June, 2019*

ORGANIZATIONS
- Farabi Talks - Event Coordinator & General Assembly Member
- IEEE - Member
- LOSEV(Turkish Foundation for Children with Leukemia) - Volunteer Artist
- Uretken Akademi - Health Team Member & Blogger
- TOG (Turkish Community Volunteers Foundation) - Member
- ISCB SC RSG Turkey (Group of Computational Biology & Bioinformatics) - Member
- Istanbul Metropolitan Municipality Sports Academy - Volleyball and Basketball Player

[1] Kars, R. H. (2021). Analysis of Mutated RNA-Type Breast Cancer Data with Machine Learning Methods. Turkish Journal of Science and Technology , 16 (2) , 251-260.

[2] O ADEBALI, RH KARS, S UYGUN, H ARSLAN (2019) (Poster)