



İREM BEGÜM GÜNDÜZ

Contact Details:

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Education

2021-Present	Saarland University, Faculty of Mathematics and Informatics Graduate School of Computer Science, Master's in Computer Science Academic Supervisor: Prof. Dr. Fabian MULLER
2017-2021	Marmara University, Faculty of Engineering Bachelor of Engineering, Bioengineering (English) Bachelor Thesis : "Discovery of New Drugs for the Inhibition of Type IV Pili Mechanisms in <i>N. Meningitidis</i> Computationally" Academic Supervisor: Assoc. Prof. Dr. Pemra ÖZBEK SARICA Scholarship: TUBITAK 1001 Scholarship

Work & Research Experience

January - Present	Student Assistant Saarland University, Saarland Informatics Campus Integrative Cellular Biology and Bioinformatics Supervisor : Prof. Dr. Fabian MULLER
July 2021 - January 2022	Bioinformatics Intern Max Delbrück Center for Molecular Medicine, Berlin Institute of Medical System Biology (BIMSB), Bioinformatics and Omics Data Science Group Supervisor : Dr. Altuna AKALIN
April - October 2021	Project Participant Bioinformatics Research Network Supervisor : Dr. Alexander J.R. BISHOP
October 2020 - August 2021	TUBITAK 1001 Project Researcher Marmara University, Department of Bioengineering Supervisors: Prof. Dr. Berna SARIYAR AKBULUT, Assoc. Prof. Dr. Pemra ÖZBEK SARICA
August - October 2020	Summer Intern VEM Pharmaceuticals
June – August 2019	Neuroscience Intern Istanbul University Aziz Sancar Institute of Experimental Medicine Department of Neuroscience Supervisor : Assoc. Prof. Dr. Nurcan ORHAN

2019 – 2021

Student Assistant

Marmara University, Department of Bioengineering,
Computational Biology and Bioinformatics Laboratory

Supervisor : Assoc. Prof. Dr. Pemra ÖZBEK SARICA

Voluntary Activities

2021 - Present

Member

Bioinformatics Research Network

2018 – 2021

Organization Team Member

IEEE Marmara University Engineering in Medicine And
Biology (IEEE EMBS)

2017 – 2020

Article Writer

Marmara University Faculty of Engineering Journal (MUFEM)

2017 – 2020

Head of the Journal and Promotions Team

Marmara University Bioengineering Society (BIYOM)

Courses & Certificates

- Data Science R Basics
- Introduction to Tidyverse
- Intermediate R Programming
- Machine Learning with Caret
- Python for Genomics
- Python Data Structures
- Introduction to Statistics with R
- Unsupervised Learning
- Linux Command Line: Shell Scripting

Projects

- Discovery of New Drugs for the Inhibition of Type IV Pili Mechanisms in *N. Meningitidis*

Supervisors: Prof. Dr. Berna SARIYAR AKBULUT , Assoc. Prof. Dr. Pemra ÖZBEK SARICA

- R-loops Levels and Clinical Associations for Ewing Sarcoma
(Ongoing)

Supervisors: Assoc. Prof. Dr. Alexander J.R. BISHOP, Dr. Daniel MONTEMAYOR

- The potential of Multi-Omics and the Limitations of Panel Sequencing for Clinical Variable Prediction in Cancer
(Manuscript in preparation)

Supervisors: Dr. Altuna AKALIN

- deconvR: Simulation and Deconvolution of Omic Profiles
(R Package is available in the Bioconductor Platform)

Supervisor: Dr. Altuna AKALIN

Skills & Interests

- Programming mainly with R, Python, and also with other languages such as Java, C, MATLAB.
- Computer - aided drug discovery
- Genomic data mining and analysis
- Machine learning algorithms
- R package development
- Development of computational methods for analyzing genomic data