

## BIOINFORMATICS EXPERIENCE

### 03.2023 – 12.2023 : Intern/Visiting Researcher

[EMBL-EBI](#), Pathogen Informatics and Modelling ([bacpop](#)) (Cambridge/UK)

- **Statistical methods:**
  - Analysed simulation models using Approximate Bayesian Computation
- **Machine/Deep Learning methods:**
  - Developed a multivariate regression **Neural Network model** using **PyTorch** ([link](#))
  - Utilised fine-tuned **LLM** models from **HuggingFace** ([link](#))
- **Computation and Programming:**
  - Developed a Wright-Fisher simulator in Python and ran on **HPC**.

### 07.2020 – 07.2022: Internship and Bioinformatician

[Genomize](#), NGS genomics analysis company (Istanbul/TR)

- **Computation and Programming:**
  - Contribute to variant analysis and prioritisation pipeline.
  - Developed a ‘gVCF to VCF’ conversion program
  - Developed TMB calculation and integrated MSI tool for the cancer analysis pipeline.
  - **Cloud:** Utilised **AWS** and **Minio** Clients.
  - Contributed to **NextFlow** analysis pipelines
- **Technical Skills:**
  - Adopted **Ubuntu**, **PyCharm**, **Docker**, **NextFlow**, **Git**, **Python3**, **Bash**
  - Bioinformatics tools: freebayes, gatk HaplotypeCaller, samtools, etc.
  - Gained insight into databases: dbSNP, clinvar, ensembl, Mondo, OMIM...

## MOLECULAR BIOLOGY EXPERIENCES

### 06.2019 – 07.2019: Volunteer Internship

[CECAD](#) - Cologne Cluster of Excellence, Schumacher Lab (Cologne/DE)

- Gel Electrophoreses, PCR, sample preparations
- Gained insight into the ageing research

### 02.2018 – 03.2019: Volunteer Internship

Boğaziçi University, [Behavioural Neuroscience Laboratory](#) (Istanbul/TR)

- Conducted **Immunohistochemistry** and experiment preparation
- Trained in behavioural experiments: Morris Water Maze, Open Field Test...
- Gained insight into the systems neuroscience

### 11.2016 – 03.2017: Volunteer Internship

Boğaziçi University, [Sense \(Fish\) Laboratory](#) (Istanbul/TR)

- First experience in a molecular biology lab
- Carried out **Immunohistochemistry**, **PCR**, **cloning**, and other essential wet lab techniques

## EDUCATIONAL BACKGROUND

08.2022 – 07.2023: **Master of Science in BeIn Precision Medicine EMJM Program, High Honours**

University Grenoble Alpes (FR) and University of Barcelona (ES)  
Grade: 16.032/20.000

- 09.2015 – 03.2021:** **Bachelor of Science in Molecular Biology and Genetics, High Honours**  
Boğaziçi University, Faculty of Arts and Sciences (Istanbul/TR)  
GPA: 3.54/4.00
- 04.2019 – 09.2019:** **ERASMUS+ Student Mobility Program, Biology**  
The University of Cologne, Natural and Mathematical Sciences (Cologne/DE)
- 09.2010 – 06.2015:** **High School Diploma, Honours**  
Cağaloğlu Anadolu High School (Istanbul/TR)  
Diploma Grade: 88.61 / 100.00

### PROGRAMMING SKILLS/TOOLS

- Git
- Bash/Shell Scripting
- Python3
- R statistics
- NextFlow
- Docker
- Pandas / Numpy
- PyTorch
- SQL/MongoDB
- AWS/GCP/AZURE

### FOREIGN LANGUAGES

- **English** (Fluent) - C1: IELTS
- **German** (Moderate) – B2: DSD II
- **Italian** (Beginner) – A1: No certificate

### SELECTED PROJECTS & CERTIFICATES

- Kaggle Certificates for *Machine Learning* ([link](#)) and *Time Series* ([link](#)) analyses courses (2024)
- Precision Oncology ([PrOne](#)) and Computational Med([CompMed](#)) Schools, European Scientific Institute (2022 - 2023)
- EMBL-EBI / Embassy of France in London Internships [Fellowship](#)(2023) ([Proud moment](#))
- Erasmus Mundus Joint Master's Program Scholarship ([EMJM](#)) and Achievement Certificate (2022-2023)
- Sabancı Foundation Scholarship (2015 - 2021)
- COVID Data Analysis [Project](#), Extrapolating data using machine learning methods (2020)
- Boğaziçi University IEEE Student Club, Synthetic Biology Platform Coordinator (2018-2019)
- [iGEM](#) (international Genetically Engineered Machine) Team Management (2017-2018)
- Boğaziçi University, BUDANCE Student Club, participated in stage shows([link](#)). (2015-2018)
- Cağaloğlu Anadolu Lisesi, Deutsches Sprach Diplom II (DSD II) (2015)
- 'Umwelt-baut-Brücken ([Ubb](#))' environmental awareness project participation certificate (2015)

### HOBBIES

Cycling  
Camping and travelling  
Always up for learning something new!

Listening to music and playing the uke  
Going to concerts and musical shows

### REFERENCES

*Available upon request.*