

Seray Altıntaş

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github/getsnacks

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LANGUAGE

Turkish (*Native*)English (*Fluent*)Spanish (*Beginner*)

SKILLS SUMMARY

- Expertise in Python, R, and SQL with experience in machine learning, data visualization, and statistical modeling.
- Proficient in genomic data analysis, bioinformatics tools (ANGSD, BWA), and evolutionary genomics.
- Advanced skills in spatial data analysis and mapping with R (ggplot2, terra).
- Experience in image classification and model development using TensorFlow/Keras.
- Strong Python skills demonstrated through CLI tools, generative art, and data processing projects.

EDUCATION

- **MSc in Molecular Biology and Genetics** Koç University, Istanbul
College of Sciences 2022/2 - 2025/1
Research focus: Genomic data analysis, adaptation patterns using Python and R.
- **BSc in Molecular Biology and Genetics** Istinye University, Istanbul, Türkiye
Faculty of Engineering and Natural Sciences 2017 - 2021/7
Relevant coursework: Bioinformatics, Population Genomics.

PROFESSIONAL EXPERIENCE

- Biodiversity and Evolutionary Genetics Laboratory (KuBEGl)** Koç University
 Graduate Student Researcher 2022/12 - Present
 Analyzed large-scale genomic datasets using bioinformatics tools (ANGSD, BWA, R, Python)
 Conducted research on rapid divergence and speciation using population genomics techniques.
 Designed workflows for SNP calling and population structure analysis.
 - Biodiversity and Evolutionary Genetics Laboratory (KuBEGl)** Koç University
 Research Project Assistant (Scholarship student) 2022/2 - 2024/1
 Developed pipelines for evolutionary genomics analysis using Python and R.
 - Biodiversity and Evolutionary Genetics Laboratory (KuBEGl)** Koç University
 Intern 2021/10 - 2022/2
 Applied statistical methods to study population genetics of Brown Bears in Türkiye.
 Used R for ecological data visualization and hypothesis testing.
 - Labredoor Biotechnology Company** Istanbul
 Researcher 2021/1 - 2023/2
 Led bioinformatics projects focusing on genomic data processing and analysis.
 Collaborated with cross-disciplinary teams for laboratory and computational research.
 - Gözükırmızı Lab** İstinye University
 Undergraduate Student Researcher (Scholarship student) 2020/5 - 2021/2
 Conducted comparative analysis of retrotransposon movements in wheat species.
 Developed a custom bioinformatics pipeline for sequence alignment and gene annotation.

TECHNICAL SKILLS

Programming languages: R, Python, SQL

Data Science Techniques: Machine Learning, PCA, Statistical Modeling. **Bioinformatic tools:** ANGSD, NGSadmix, samtools, BWA

Scripting and typesetting: L^AT_EX, sed, awk, Bash

Operating systems: GNU/Linux

Other tools and frameworks: Git, ANGSD - angsd, ngsTools, PCAngsd, ngsParalog, samtools, bwa, Conda

PUBLICATIONS

[1] **Seray Altıntaş**, Bekir Ahmet Ilgar, Elif Karlık [Comparative Retrotransposon Analysis in Wheat](#) *Journal of Advanced Research in Natural and Applied Sciences*, 7(3), 369-374 (2021).

SELECTED PROJECTS

Health Insurance Prediction (GitHub Repository)

- A machine learning project in Python for predicting health insurance costs. Utilizes Linear Regression and Scikit-Learn for modeling and predictions.

Sale Analysis (GitHub Repository)

- Python project for sales data analysis, using Pandas for data manipulation and Matplotlib for data visualization.

Depth2Normal (GitHub Repository)

- CLI tool for depth map generation using ZoeDepth, designed for image-based depth estimation.

Coral Identification (GitHub Repository)

- TensorFlow/Keras model to classify coral health (healthy vs. bleached) using a custom dataset.

Uninhabited Areas Map (GitHub Repository)

- GIS analysis in R to map uninhabited regions in Türkiye using GHSL data.

City Maps (GitHub Repository)

- Customized R project for creating detailed city maps and visualizing spatial data.

Random Generative Art (GitHub Repository)

- Python project for gradient-based abstract art creation using the Pillow library.

SELECTED COURSES

- Machine Learning A-Z: AI, Python, R, Udemy, 2024
- Summer School on Evolutive Ecology and Biology, University of Montpellier, 2024
- Basic End-to-End Python Projects Course, 2024
- Data Science Path, patika.dev Academy, 2024
- Geographic Analysis of Biodiversity Data Workshop, 2023
- Fundamentals of Big Databases, 2022
- Genomics School, Ecology and Evolutionary Biology Society of Türkiye, 2021
- Code In Place, Stanford University, 2021

MEMBERSHIPS & AFFILIATIONS

- Ecology and Evolutionary Biology Society of Türkiye, 2023 - present
- Journal of Wildlife and Biodiversity, Internal management, 2023 - present
- Biology Society of Türkiye, Junior Biologist, 2020 - 2022
- Good4Trust.org, Web Content Writer, 2021/6 - 2021/12

INTERESTS

- Bouldering
- Art and Graphic design
- Sea and diving