

# Alper Yayla

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## EXPERIENCE

### Digital Marketing Intern

LC Waikiki

December 2022 - February 2023

- Creating ad campaigns and analysing data using google ads, google analytics also critico and rtb house.

### Chess Coach

Turkish Chess Federation

November 2022 - January 2023

- Teaching chess for kids.

## PROJECTS

### Machine Learning-Driven LDL Calculation Optimization in Bioinformatics Research

- Led a cross-disciplinary team including a biochemistry specialist doctor, cardiologist, and associate professor to develop a novel LDL (Low-Density Lipoprotein) cholesterol calculation method, surpassing conventional Friedewald and Sampson formulas. Utilized Python's ecosystem with symbolic regression and data analysis libraries such as NumPy, Pandas, and Scikit-learn for algorithm development and validation. Engineered a Kotlin-based application for seamless implementation in healthcare settings. Iteratively refined the algorithm based on empirical data and expert insights, positioning the project for publication in peer-reviewed journals for scientific dissemination.

### Medical Image Processing: Spinal Curvature Classification and Human Height Estimation

- Developed an automated system to classify spinal curvature and estimate human height from medical images using MATLAB. Leveraged image processing and machine learning techniques to create synthetic datasets and train a classifier for accurate identification of spinal curvature. Implemented advanced image preprocessing and segmentation methods to isolate the spinal region for detailed analysis. Engineered algorithms to estimate human height directly from images, enhancing diagnostic capabilities in medical imaging applications.

### Python-Based ARIMA Time Series Analysis and Web Visualization

- Led the development of a Python-based ARIMA time series analysis tool to analyze six different parameters, including heat and carbon dioxide levels. Implemented web-based visualization capabilities to publish and display analysis results graphically. Utilized Python libraries such as pandas, statsmodels, and Flask for data analysis, modeling, and web development. Designed an intuitive user interface for easy data exploration and interpretation.

## EDUCATION

### Bachelor Computer Engineering

Istanbul Aydin University • 2020 - 2024

Echole 42 • April 2022 - May 2022

## SKILLS

Languages: Python, SQL, Kotlin, MATLAB, Html/CSS

Libraries: Numpy, Pandas, Matplotlib/Seaborn, Scikit-learn, Scipy, Selenium

Tools: Git, Microsoft Excel, Power BI, Android Studio