

# Aurelio Barrios

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## Education

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### University of California San Diego Bachelor of Data Science

Sept 2017 - June 2021

- **Courses:** Data Visualization, Data Analysis, Machine Learning Algorithms, Data Structures, Database

## Skills

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Languages: Python, SQL, Tableau, Javascript, HTML, CSS

Technologies: PyTorch, TensorFlow, pandas, MySQL, AWS, Git, Docker, Flask

## Personal Projects

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### Loan Acceptance With FairLearn Package

Los Angeles, CA

Implementing An Ethical Machine Learning Model For Loan Approvals

June 12, 2021

- Built a machine learning model that maintained a respectable accuracy whilst also making sure that loan approvals were fair across sensitive attributes like race and sex
- Used ethical metrics like demographic parity difference and equalized odds difference to make sure loan approval rates were equal across different races
- Also made sure loan predictions were accurate to previous loan approvals measured in the dataset

### Complete Machine Learning Project With Python

Los Angeles, CA

Rudimentary Approach To Kaggle Machine Learning Competitions

Dec 15, 2021

- Built a machine learning model that accurately predicted the forest cover type from cartographic variables
- Performed exploratory data analysis on the given dataset which allowed for feature engineering in order to build the best machine learning model
- Built a Stochastic Gradient Descent classifier and a TensorFlow Neural Network that performed 89% and 93% accuracy respectively on the final Kaggle leaderboard test set

### Premier League Interactive Dashboard With Highcharts

Los Angeles, CA

Implemented A Data Visualization Dashboard Using JavaScript

Jan 18, 2022

- Implemented an HTML dashboard from scratch using Premier League data from 2009 to present day
- Using the JavaScript based library Highcharts this dashboard displays multiple data visualizations upon picking a specific team and can be used to compare different teams

### Twitch Streamer Recommender System From Scratch

Los Angeles, CA

Deploying An Item-Based Recommender System Using Flask & Twitter Scraped Data

Feb 2, 2022

- Implemented and deployed a Twitch recommender using Flask where a user can get recommendations on which Twitch streamer they may be interested in
- Implemented using the Twitter API web scraper and the item-based collaborative filtering technique