



# US Visa Approval Prediction



Machine Learning Project



# Project Overview:

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- Understanding the Problem Statement
- Understanding the solution
- Code understanding & walkthrough
- Understanding the Deployment

# Deployment:

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- Docker
- Cloud Services
- Adding self hosted runner
- workflows

# Problem Statement:

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## **US visa approval status**

Given certain set of feature such as ( continent, education, job\_experience, training, employment, current age etc.

We have to predict whether the application for the visa will be approved or not.

# Features:

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Continent: Asia, Africa, North America, Europe, South America, Oceania

Education: High School, Master's Degree, Bachelor's, Doctorate

Job Experience: Yes, No

Required training: Yes, No

Number of employees: 15000 to 40000

Region of employment: West, Northeast, South, Midwest, Island

Prevailing wage: 700 to 70000

Contract Tenure: Hour, Year, Week, Month

Full time Yes, No

Age of company: 15 to 180

# Solution Scope:

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This can be used on real life by US visa applicants so that they can improve their Resume and criteria for the approval process.

# Solution Approach:

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1. Machine learning : ML Classification Algorithms
2. Deep Learning: Custom ANN with sigmoid activation Function

# Solution Proposed:

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We will be using ML

1. Load the data from DB
2. Perform EDA and feature engineering to select the desirable features.
3. Fit the ML classification Algorithm and find out which one performs better.
4. Select top few and tune hyperparameters.
5. Select the best model based on desired metrics



# Project Setup:

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- Github Repository
- Requirements
- Template

# MongoDB setup

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<https://cloud.mongodb.com/>