**Softwares Used:**

1. Anaconda
2. VScode
3. Git

**US\_VISA\_APPROVAL\_PREDICTION**

**Project Overview :**

1. Understanding the Problem Statement
2. Understanding the solution
3. Code understanding and walkthrough
4. Understanding the Deployment

**Deployment:**

1. Docker
2. Cloud services
3. Adding self hosted runner
4. Workflows

**Problem Statement:**

US Visa Approval status

1. Given certain features such a continent , education , job\_experience , training , employment , current age etc .
2. We have to predict whether the application for the visa will be approved or not

**Understanding the dataset:**

1. Continent: Asia, Africa, North America, Europe, South America, Oceania
2. Education: High School, Master's Degree, Bachelor's, Doctorate
3. Job Experience: Yes, No
4. Required training: Yes, No
5. Number of employees: 15000 to 40000
6. Region of employment: West, Northeast, South, Midwest, Island
7. Prevailing wage: 700to 70000
8. Contract Tenure: Hour, Year, Week, Month
9. Full time Yes, No
10. Age of company: 15 to 180

**Solution:**

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

**Solution approach:**

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

**Solution Proposed:**

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:**

1. Github Repository
2. Requirements
3. Templates