**Resume Classifier API**

A Flask-based API for classifying resumes into predefined job roles using machine learning models. This project leverages TF-IDF for text vectorization and logistic regression for classification.

**Features**

* Classifies resumes into roles such as Engineer, Accountant, HR, and more.
* Easy-to-use REST API for integration with other applications.

**Project Structure**

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**Prerequisites**

* Python 3.7+
* Flask
* Scikit-learn
* Joblib

**Installation**

1. Clone the repository:

git clone https://github.com/your-username/flask-resume-classifier.git

cd flask-resume-classifier

1. Create a virtual environment:

python -m venv venv

source venv/bin/activate (On Windows: venv\Scripts\activate)

1. Install dependencies:

pip install -r requirements.txt

**Usage**

1. Start the Flask server:
2. python app.py
3. Send a POST request to the API:
4. curl -X POST http://127.0.0.1:8080/predict -H "Content-Type: application/json" -d '{"resume": "Sample resume text"}'

Example response:

{

"job\_role": "Accountant"

}

**Example Requests**

**Engineer:**

curl -X POST http://127.0.0.1:8080/predict -H "Content-Type: application/json" -d '{"resume": "Experienced software engineer skilled in Python, Java, and machine learning."}'

**Accountant:**

curl -X POST http://127.0.0.1:8080/predict -H "Content-Type: application/json" -d '{"resume": "Experienced accountant with expertise in financial reporting and budget planning."}'

**Testing**

You can test the API using tools like:

* Postman
* cURL
* Python requests library

**Contributing**

Contributions are welcome! Please fork the repository and submit a pull request.

**Screenshots**

A computer screen shot of a black screen

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A screenshot of a computer

Description automatically generated **License**

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**Acknowledgments**

* Flask for the web framework.
* Scikit-learn for machine learning tools.
* Joblib for model serialization.