

Machine Learning Based Revenue Forecasting Tool

Short Description

Feinstein AI offers financial advisory services tailored for startups. These startups want to know insights on their future cash reserves based on past data on revenue, expenses, and existing cash holdings. This tool allows users to upload past data, apply various ML models such as linear regression to predict future cash reserves. This analysis allows them to make strategic decisions, such as reducing expenses or increasing revenue, to achieve their goals.

Future Prediction requirements:

The tool provides predictions of future financial outcomes, requiring estimates of future expenses and revenue.

Goal:

It helps startups forecast cash reserves and make informed financial decisions.

Components

- **Frontend:**
 - **Technology:** Streamlit
 - **Features:** User interface for uploading data, selecting variables, and choosing ML models.
- **Backend:**
 - **Technology:** Python, scikit-learn
 - **Features:** Data processing, model training, and prediction.
- **Database:** **sqlite, stores user profile and login data, allows users to store datasets to the database for use in the future.**
- **APIs:**
 - **Intuit QuickBooks API:** Fetches revenue data.

System and Data Flow

Users upload revenue data or fetch it via QuickBooks API. The data is processed and analyzed using Python and scikit-learn. Users select independent and dependent variables and choose an ML model in the Streamlit interface to forecast revenue. The python script processes the input, trains the model, and returns prediction results. Startups can input estimates of future expenses and revenue to forecast their expected cash reserves at specific future points in time.