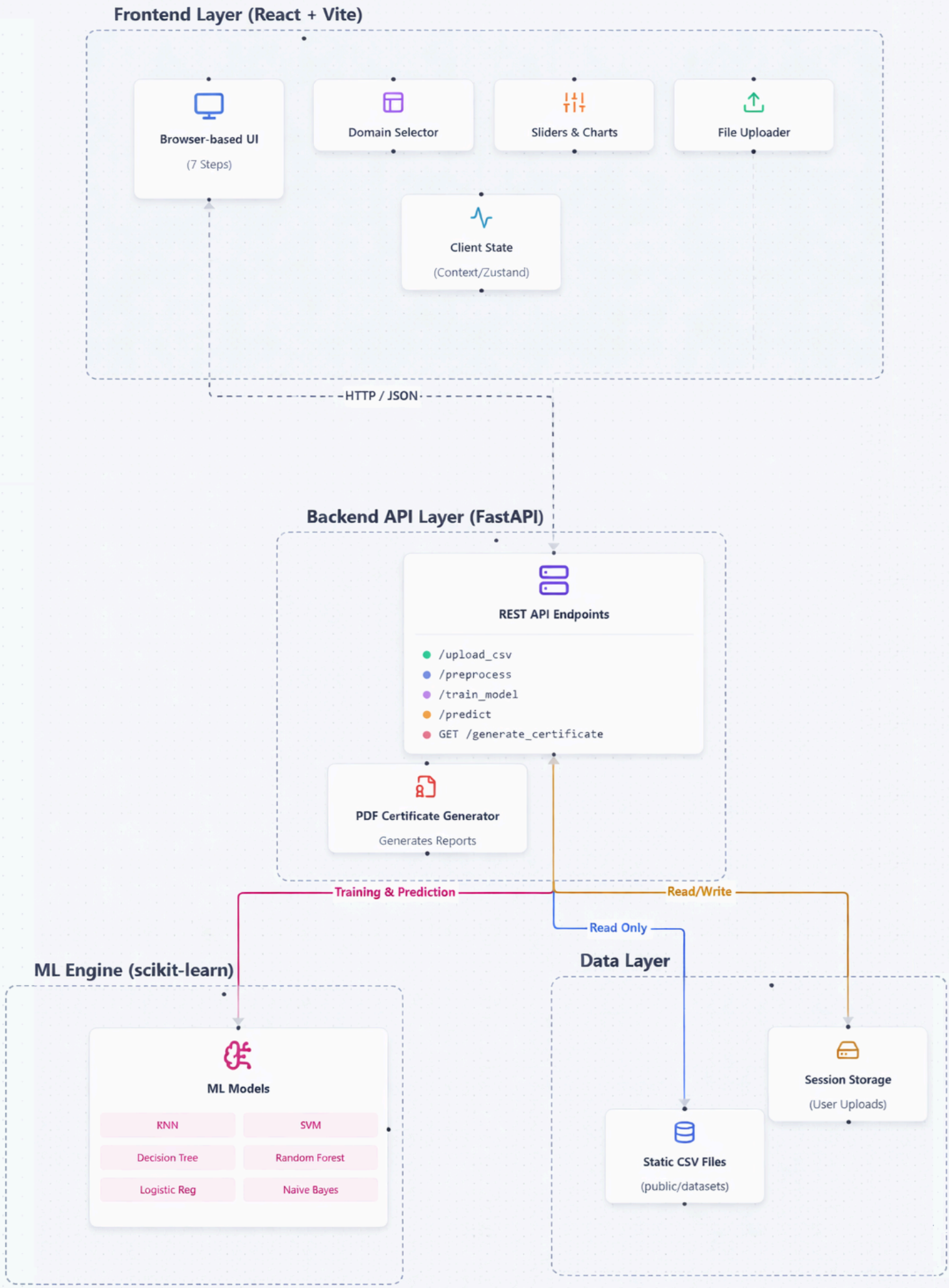
Frontend Layer (React + Vite)
Browser-based UI
(7 Steps)
Domain Selector
Sliders & Charts
File Uploader
Client State
(Context/Zustand)
HTTP / JSON
Backend API Layer (FastAPI)
REST API Endpoints
/upload_csv
/preprocess
/train_model
/predict
GET /generate_certificate
PDF Certificate Generator
Generates Reports
Training & Prediction
Read/Write
Read Only
ML Engine (scikit-learn)
Data Layer
ML Models
KNN
SVM
Decision Tree
Random Forest
Logistic Reg
Naive Bayes
Session Storage
(User Uploads)
Static CSV Files
(public/datasets)