**Motivation**

Property Managers are overwhelmed by large accounting datasets with valuable insights into their properties’ operational health, but lack

1) an intuitive medium to understand trends in their vast accounting datasets
2) the technical knowledge needed to predict future expenses from their accounting data

**Solution**

An ML driven platform for property managers to visualize financial forecasts

Equip property managers with access to real-time ML inference and key metrics on their user-specific data

**WorkFlow**

- **Accounting Database**: AppFolio property managers have their property related accounting data stored in PostgreSQL
- **Library of Pretrained Machine Learning Models**: A set of category-specific pre-trained Machine Learning models are stored in PostgreSQL
- **Metrics Computation**: A multitude of metrics concerning properties’ operational health are calculated in Django
- **Inference on Future Dates for a Category**: A request is sent by the frontend to the Django backend to create inferences with the stored models
- **Predictions Visualized on Graph Formats**: The predictions are then sent to the frontend to be visualized by React in a user-friendly way

**Machine Learning**

- Retrieve Data Input
- Feature Extraction
- Preprocessing
- Model Generation
- Metrics and Export

**Impact**

With Sibyl’s real time Machine Learning inference, property managers can get accurate predictions on their category-specific future expenses

Key metrics allow property managers to clearly see their properties’ operational health, allowing them to allocate their financial resources accordingly