Recent Project Highlights for John Liber

These example projects were all from 2020-2025 where I was the primary technical resource, directly worked with the business owners, and performed the development work. Not pictured are many other smaller efforts from the same timeframe. I'd be happy to discuss any of these examples in greater detail with you!

POWER BI

Investment Portfolio Browser & Report Suite

Used **Power BI** to connect to a relational database housing the firm's **Investment Book of Record** for reporting on portfolios, historical holdings, securities, benchmark data, and other security analytics. Performed **ETL** using a combination of medium-complexity **SQL JOINs** and other **Power Query** transformations to model the data into a **star schema,** aligned with Power BI best practices. Leveraged additional out-of-the box features including **Incremental Refresh** and the **shared semantic model** concept (utilizing the same dataset for multiple "thin" reports) to reduce data storage and the amount of data in the daily refresh. At the request of the business, also implemented some unique lookback logic using **DAX** to use the best available data analytics in certain circumstances where there were delayed analytics.

Wisconsin Investments Statutory Reporting

Revamped a set of existing **SQL queries** and a **Tableau** report set that provided aggregated data used for State of Wisconsin statutory reporting. Converted the report to **Power BI**, used **Power Query** for ETL, and translated a variety of business logic using **DAX**. Used both documentation and report-level visuals to better communicate the logic to report users for better understanding & transparency.

Investment Team Report Suite

One of my primary internal customers was the investment team that manages passive investments, liquidity, and exposure management. I would often help that team convert their visions into **Power BI dashboards**. Created **10+ dashboards** (some with many pages) after performing **business analysis** to understand the purpose and the team's requirements. Data was sourced from **10-15 different databases and systems** and provided them with insights needed to perform their mandates such as understanding absolute/relative risk, portfolio vs. benchmark weights, index constituents, upcoming corporate actions, and much more.

Tableau to Power BI Conversions

Converted ~10 other report sets from **Tableau to Power BI**, performing **business analysis** with the business owner to make sure everyone understood and agreed upon the logic and aggregations. This required digging into the Tableau report's logic and formulas and then developing the best equivalent in **Power BI visualizations**, **Power Query**, or **DAX**. Each conversion often resulted in some simplification, the addition of new visualizations, or other aesthetic improvements.

Supporting Certification

Microsoft Power BI Data Analyst Associate (Exam PL-300)

POWER AUTOMATE

Quarterly Reporting Workflow and SharePoint Status Dashboard

Four different external customers received a quarterly investment report on their separately managed fund (holdings, performance, compliance with guidelines, etc.). The reports were complex, multi-sourced and generated from **Power BI reports**. Almost as complex was the process used to coordinate & generate these reports every quarter! Used **Power Automate** to transform the manual process I inherited into a nicely **orchestrated, automated workflow**, with a series of emails to communicate specific due dates, let each team know when action was on them, facilitate sharing of various supporting data, etc. The **Flow** also updated fields on a **SharePoint status page** to allow anyone to see the current state of each workflow.

Flows for Monitoring, Notifications, Refreshes, and More

Used **Power Automate Flows** for many other purposes in support of the reporting and business intelligence function. For example, Flows could be used to run **SQL queries** or call **REST APIs** for various monitoring, emailing any exceptions to the appropriate parties. In some cases, Flows were used for data extract where functionality was limited in Power BI but was possible in Power Automate (e.g., complex REST API calls or refresh a dataset every 15 minutes for a certain time window).

Supporting Certification

Microsoft Power Platform Functional Consultant Associate (Exam PL-200)

OTHER POWER PLATFORM AND MICROSOFT CLOUD

Report Inventory v1 (Power Apps Pilot)

After self-study and passing a certification exam (Microsoft PL-200), performed a pilot of **Power Apps** with our reporting inventory as the use case. The inventory contained both core data about the reports as well as some separate metadata (e.g. approvers, owners, data sources, etc.). Used **Dataverse** to store the data in several different related tables. A **Model-driven App** was then built as the primary way for users to view and update the report inventory. A supplemental **Canvas App** was also built to pilot more complex functions such as providing a self-service way to refresh specific Power BI semantic models.

Supporting Certifications

Microsoft Power Platform Functional Consultant Associate (Exam PL-200)

Microsoft Azure Fundamentals (Exam AZ-900)

Microsoft 365 Fundamentals (Exam MS-900)

PYTHON AND POWERSHELL DEVELOPMENT

Report Inventory v2

Wrote an **Azure Function** using **Python** for several different needs related to report inventory. **GitLab** was used for **CI/CD** to **Azure** with a **deployment pipeline** that checked code formatting & linting, performed unit testing, and more. The main purpose of the Azure Function was to dynamically query a separate metadata system in order to determine **Power BI report data dependencies**. The Azure Function was later extended to also query & return semantic model refresh info using the **Power BI REST API** to read data from the **Power BI Capacities.**

Various Scripts for Data Analysis

Many different **Python** (and sometimes **PowerShell**) scripts were used over the past 5 years for Data Analysis or Infrastructure purposes. One example was a Python script that was developed to export, aggregate, and perform analysis on current report permissions in the interest of simplification (move away from user permissions and instead use groups). **PowerShell** was often the quickest way to **query the Power BI Workspace or Capacities**.