

## Case Study | AI, NLP, RPA, DATA ENGINEERING

### US Company providing automation in HealthCare- Legal segment



#### Problem

A US healthcare-legal enterprise faced a time-consuming and error-prone process of manually reconciling tax payments associated with extensive air travel expenses.

The diverse formats of digital PDF invoices from various airline companies posed a challenge for efficient data extraction.

#### Solution

Implemented a **Robotic Process Automation (RPA) solution** with a focus on advanced data extraction techniques with key features including:

- Intelligent data extraction to capture specific fields (e.g., invoice number, dates, tax amounts, etc.) from complex PDF invoices.
- Automated data reconciliation and transfer to downstream systems for tax processing.

#### Results

- Significantly streamlined the tax reconciliation process, saving time and resources.
- Achieved a 99% accuracy rate, virtually eliminating errors associated with manual data entry.
- Increased efficiency and compliance within the company's tax payment processes.



#### Technology Stack

- RPA Platform:** UiPath, Blue Prism, Automation Anywhere, or other suitable RPA tools.
- Data Extraction Libraries:** PDF parsing libraries (e.g., PyPDF2, iText) potentially combined with OCR if PDFs are not text-searchable.
- Database/Integration:** Connection with target tax processing systems.



#### Software Development

- Methodology:** Iterative development of RPA workflows and data extraction rules for continuous refinement.
- Focus:** Robust error handling procedures for the 1% of non-standard or unreadable invoices
- Auditing:** Logging and audit trails for compliance purposes.



#### Before Metrics

Hours spent manually extracting and reconciling tax data from invoices.

Potential for errors impacting financial and tax compliance.



#### After Metrics

Significant reduction in processing time (e.g., from hours to minutes per invoice).

Near elimination of manual errors, increasing accuracy to 99%.

Improved compliance and financial reporting.