

## Optimizing Operations: AI & Web Scraping to Automate Data Entry

### Overview

Tickets For Kids, a non-profit dedicated to providing children with access to sports, museums, and performances, was burdened by a critical operational challenge: manually entering data for over 2,400 MLB games. With limited staffing and increasing demands during the busy MLB season, this labor-intensive process not only drained valuable time but also diverted focus from strategic initiatives that drive their mission.

### The Challenge

The organization's manual data entry process was unsustainable. Every MLB game required meticulous data collection and input—a task that was both error-prone and time-consuming. During peak periods, the volume of work escalated dramatically, leaving the team overwhelmed and unable to dedicate resources to more impactful activities like community outreach and program development.

### The Solution

To address these challenges, I developed an automated system that combines robust web scraping with advanced generative AI. The system works as follows:

- **Web Scraping:** Custom-built Python scripts automatically gather accurate event data from multiple trusted sources. This ensures that every detail—from game schedules to promotional information—is captured reliably.
- **Generative AI:** Using a state-of-the-art language model, raw data is transformed into engaging event descriptions. These descriptions highlight key promotional details (think “Bobblehead Night, anyone?”) that enhance the appeal of each event.
- **Containerization & Cloud Deployment:** The entire solution was dockerized, ensuring consistency and ease of deployment. It was then seamlessly integrated into their existing workflows by deploying it to the Azure portal, providing scalable and secure performance.

### Impact & Results

The automated solution has delivered measurable benefits:

- **Efficiency Gains:** Dozens of hours previously spent on manual data entry were reclaimed, allowing staff to focus on higher-level strategic tasks.
- **Enhanced Accuracy:** Automated data collection has significantly reduced human errors, ensuring the promotional content is both timely and precise.

- **Resource Optimization:** With routine tasks automated, the team can concentrate on expanding their outreach and improving their programs, ultimately increasing the non-profit's impact.
- **Scalability for Future Growth:** The containerized architecture ensures that the solution can scale effortlessly as data volumes increase.

### **How I Can Help**

Are manual processes holding your organization back? If inefficient workflows are draining resources and limiting your impact, let's explore how AI-driven automation can transform your operations. With a tailored solution, we can streamline data handling, reduce errors, and free up your team to focus on what truly matters—driving your mission forward.