Web Scraping & Process Automation: HPG assisted a client automate the process of data collection for an events catalog using web-scrapers.

Problem	Solution	Results
Client needed a catalog of events and events details (data/time, location, attendees, registration links, etc.).	**HPG constructed an automated web-scraper to aggregate data from each website into a single database.**	**HPG helps maintain a centralized database and no more manual data collection is needed.**
Process: Client pulled data from 10 different websites that had 20+ pages every few days.	Process: HPG created web-scrapers and a centralized database to automatically retrieve and store data.	Process: HPG updates the main database on a weekly basis by running code that runs within a 5-10 minutes.
Data Quality: Data from different sources was not standardized and no singular database was maintained so data was often lost/hard to aggregate.	Data Quality: Data is standardized according to the client's needs and data is version controlled.	Data Quality: All data is standardized from different websites allowing for ease of data aggregation.
Process Timing: 5-10 hours of manual work weekly.	Process Timing: Each website's web-scraper took 1-2 hours to construct.	Process Timing: Client saves ~400 hours annually in manual labor cost.
Resources Utilized: CEO/COO had to do this process and then hired seasonal hourly paid interns.	Resources Utilized: HPG developed all of the web scraping tools in-house without the use of 3rd party developers.	Resources Utilized: Neither client nor HPG do any manual work and occasionally patch code at a reasonable preset hourly rate.