Harvard
College
Data
Analytics

Harvard Undergraduate Data Analytics Group

PREPARED FOR

Florida Gators

PREPARED DATE

June 19, 2024

ENGAGEMENT TIMEFRAME

Sep-Dec 2024

Harvard College Data Analytics Group (HDAG) is a non-profit student organization at Harvard dedicated to helping organizations make smarter and more data-driven decisions. We assist companies in achieving their strategic goals by translating their data into meaningful and actionable information. We aim to pair teams of well-trained, highly-motivated Harvard students with our partners, specifically focusing associates and analysts in industries where they have experience or interest, in order to produce the highest quality of work possible. From data collection to strategy implementation, we want to be there every step of the way to help organizations make data their new superpower.

We competitively recruit undergraduate students at Harvard with demonstrated competence, dedication, and problem-solving skills, many of whom have prior experience working in top management consulting or data science teams. All our team leaders have experience working in or leading data science teams at Fortune 500 companies, and our board of technical advisors include members of the Harvard faculty. Each team, composed of around seven to eight Harvard students, commits over 900 hours to a case over the course of a 12 week span.

We enjoy different challenges and work with a diverse set of organizations and problems. Our clients range from local businesses to Fortune 500 companies to international non-profits. Using our capabilities in visualization, machine learning, and predictive analytics, among others, we help organizations diagnose problems and identify strategies across their sales, marketing, financial or operational functions. Client confidentiality is our utmost priority.

Harvard College Data Analytics

Team Capabilities

1. Data Analytics Consulting: deriving valuable insights from data

a. Case study 1 - Providing IT resource management analytics for a multinational Fortune 500 company in energy and automation: Through statistical analysis of over 100k anonymized employees, we identified help desk call volume and demographic trends to help inform executive decisions on employee satisfaction and IT resource allocation.

b. Case study 2 - Providing data processing service for a Wall Street fintech company: Through scraping the Securities and Exchange Commission (SEC) website and extracting relevant data en masse, we created well-formatted databases to advance the client's core digital offerings.

2. Machine Learning Algorithms: training and deploying predictive models

a. Case study 1 - Providing IT security service for a multinational Fortune 500 company in energy and automation: By building ML models, we enabled predictive analytics for the company's future spending on Indirect Procurements and introduced data integrity improvement design to the purchase request process.

b. Case study 2 - Providing AI algorithm advancements for a leading sports analytics company: Using “Big 5” European club leagues’ pre-game and in-game data, we created models that predict win, loss, and draw probability and provided an evaluation of the accuracy and probability calibration of the models.

3. Business Intelligence Visualizations: creating interactive visual dashboards

a. Case study: Providing visualization services for the World Health Organization Region for the Americas: We developed a web app to visualize models on COVID-19 outbreak to predict rate of transmission and epidemic curves; product delivered to WHO country offices in Latin America for projections of varying health intervention measures.

4. Whole-Set Solutions: providing comprehensive digitalization systems

a. Case study: Creating an HR and user management system for an educational foundation in China: We developed a system from scratch to help the management team keep track of employee’s progress and KPI and to help employees better manage student feedback.

Harvard College Data Analytics

Proposal for the Florida Gators:

The primary goal of this project is to strategically evaluate and maximize the revenue generation potential of the Florida Gators Athletic Department by analyzing and optimizing current marketing assets, identifying undervalued or missing assets, and exploring innovative solutions for new revenue streams. The target is to increase annual revenue by $20 million.

1. Technical Work to Be Done:

1.1. Asset Inventory and Valuation

- **Task:** Conduct a comprehensive inventory of all existing marketing assets, including physical (stadium, goal posts, scoreboards) and digital assets (social media channels, website).
- **Deliverable:** Detailed report listing all assets with current valuations.
- **Method:**
    - Perform site audits (as best as can be done virtually).
    - HDAG will require current sponsorship and licensing agreements.
    - Assess the visibility and current market value of each asset.

1.2. Comparative Analysis

- **Task:** Compare Florida Gators' assets and revenue generation strategies with those of other universities and professional sports teams.
- **Deliverable:** Comparative analysis report with benchmarking data.
- **Method:**
    - Collect data on peer institutions and professional leagues.
    - Analyze how these organizations utilize and monetize their assets.

1.3. Revenue Stream Analysis

- **Task:** Evaluate current revenue streams, identify any that are underperforming, and propose new streams.
- **Deliverable:** Revenue stream assessment report.
- **Method:**
    - Analyze financial statements and revenue reports.
    - Identify opportunities for increasing the value of existing assets.

- Research potential new assets and revenue sources (e.g., naming rights, digital content monetization).

1.4. Market Valuation of Undervalued or Missing Assets

- **Task:** Identify assets that are either missing from the portfolio or undervalued and estimate their potential value.
- **Deliverable:** Asset valuation report with recommendations.
- **Method:**
  - Conduct market research and valuation studies.
  - Interview stakeholders to understand asset utilization.

1.5. Strategic Recommendations

- **Task:** Develop strategic recommendations to enhance revenue generation.
- **Deliverable:** Strategic recommendations document.
- **Method:**
  - Synthesize findings from asset inventory, comparative analysis, and revenue stream analysis.
  - Provide actionable steps for each identified opportunity.

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2. Desired Deliverables:

1. **Comprehensive Asset Inventory and Valuation Report**
   - Complete list and valuation of all existing marketing assets.
   - Identification of underutilized or undervalued assets.
2. **Comparative Analysis Report**
   - Benchmarking against other universities and professional leagues.
   - Insight into best practices and successful revenue generation strategies.
3. **Revenue Stream Assessment Report**
   - Detailed evaluation of current revenue streams.
   - Recommendations for optimization and potential new revenue sources.
4. **Market Valuation Report**
   - Valuation of newly identified or undervalued assets.
   - Potential revenue forecasts for these assets.
5. **Strategic Recommendations Document**
   - Short-term and long-term strategies for revenue enhancement.
   - Specific action plans and timelines for implementation.

3. Access to Relevant Datasets and Required Resources:

3.1. Data Collection:

- **Current Sponsorship Agreements:**
  - Require access to existing contracts, agreements, and financial data related to current sponsors and licensing deals.
- **Revenue and Expense Reports:**
  - Require financial statements for the past 3-5 years to understand current revenue streams and expenses.
- **Market Research:**
  - HDAG will collect data on competitor strategies and revenue figures.
- **Digital Analytics:**
  - HDAG will analyze social media performance and website traffic.

3.2. Stakeholder Interviews:

- **Internal Stakeholders:**
  - HDAG will conduct interviews with department heads, marketing teams, and financial officers.
- **External Stakeholders:**
  - HDAG will engage with current sponsors, potential sponsors, and market experts.

3.3. Tools and Resources:

- **Valuation Tools:**
  - HDAG will utilize software for asset valuation and market analysis.
- **Benchmarking Platforms:**
  - HDAG will use industry-specific platforms for comparative analysis.

Rough Engagement Timeline

Dates	Week	Tentative Schedule
9.18-9.24	0	Each HDAG Case Team Leader (CTL) will have a call with

		the respective Client liaison to better understand work expectations and align goals for this semester (in terms of research questions, final format of deliverables, etc.) After the meeting, CTL will consult with two associates of the HDAG case team and map out the weekly work plan for the semester: from both the perspective of technical execution and business analysis.
9.25-10.1	1	CTL will introduce the project and the work plan to the rest of the case team and start delegating tasks to each individual. (In each team we have data scientists who are proficient in Python, R, SQL and other analytical tools as well as business analysts who have experience working in industry).
10.2-10.8	2	Every member of each Client Case Team will follow the work plan, start both the data analytics, which includes every aspect of the data pipeline: data transfering, cleaning, exploration, modeling, visualization etc. Our business analysts will also work on competitor analysis, financial analysis, and other topics on an ad-hoc basis. Every week, each CTL will update the Client liaison on the progress that the case team has made over the past week. There is also a weekly meeting between the case team where each member will discuss their work with the others, and the CTL will delegate work for next week.
10.9-10.15	3	
10.16-10.22	4	
10.23-10.29	5	Wrap up the work for the first half of semester, and prepare for the midway presentation to Client which can include both a technical product (algorithm, statistical model, web app) and a business presentation (slides).

10.30-11.5	6	Midway presentations with Client: each whole team will present their findings and recommendations from the first half of the semester to the Client team. Each HDAG case team will follow up with any questions the Client team might have during or after the presentation.
11.6-11.12	7	After the midway presentations, each CTL will integrate comments or suggestions from the Client team to the work plan. Each CTL will list out the remaining questions or technical tasks for the latter half of the semester and delegate them to each individual of the case team.
11.13-11.19	8	
11.20-11.26	9	
11.27-12.3	10	The case team will summarize their work for the entire semester and give a final presentation to Client. This will include both technical deliverables and the business presentation. HDAG team will follow up with any questions the Client business team might have during or after the presentation.
12.4-12.17	Post-Project	HDAG team will follow up with Client on the implementation of suggestions and deployment of analytical tools. We will ask for feedback on their work for the Fall of 2024.

Pricing

- **Engagement Timeline:** 12 weeks, September to mid-December, 2024
- **Semester Case Fee:** $40,000