OWL VISION

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PROJECT QUICK PLAN

Owl Vision Art

**AI Generated image using OpenAI's Dalle-3 and ChatGPT

Objective:

Owl Vision is meant to serve as an easy to use platform that can help athletic staff and faculty, specifically the sales and marketing departments, better identify trends and identify potential season ticket holders as well as specific ticket packages such as group tickets which has been very popular in the 2023 football season. This data used in this algorithm can vary but common sources will be alumni, merchandise purchases, previous ticket buyers, athletics mailing list, KSU athletic app users, etc. This data and variables selection will change after stakeholders meetings have taken place.

Business Opportunity:

Owl Vision has the opportunity to provide systematic selection on a wide scale of potential ticket buyers among other categories of fans. All of this within a simple easy to use and intuitive software package. Among others Owl Vision should also free up time for relevant staff as it can identify ticket holders at a much faster rate than any human can. Also, Owl Vision can export these results into excel files that can be used for business analysis and presentations to internal teams making the sharing and communication of this information much easier.

Business Objectives:

1. Increase Revenue
    a. Provide a systematic way to identify potential ticket purchasers.
2. Cost Savings
    a. Reduce operation costs as Owl Vision can reduce time to find and identify potential ticket buyers.
3. Gather and Store Data for Future Analytics
    a. If such a system that can be created to track the actual accuracy and turnover rate for Owl Vision prospects compared to actual ticket purchases from those prospects would help refine the algorithm in the future and provide better feedback to appropriate staff members.

Vision Statement:

Owl Vision is

For all relevant athletic department staff

Who seek rapid generation and identification of future ticket purchasers

The Owl Vision software is a first addition to a suite of tools

That can be further used by all relevant faculty and staff

Is internal and home grown

Unlike many other third party solutions that aren't only expensive but also don't tailor to the exact and specific needs of the Kennesaw State Owls athletic program and their subsidiaries and departments.

Business Rules

1. **Data Source Authenticity:** Only official and verified data sources will be integrated into this software project. Sources include but are not limited to alumni records, official merchandise purchase histories, previously verified ticket buyers, authorized athletics mailing lists, and KSU athletic app user databases.
2. **Privacy and Data Protection:** Owl Vision will adhere strictly to data protection regulations that are set forth by the university and her subsidiaries. Personal data will be encrypted and anonymized to the software's users.
3. **Export & Integration:** Owl Vision's exportable data, especially to Excel for business analysis, should be in a consistent and standardized format, ensuring compatibility and ease of further analysis.
4. **Internal Use:** Owl Vision is designed for internal use withing Kennesaw State Athletic Department and all surrounding/relevant departments. Any external sharing or usage should first be approved by respective leaders to ensure data integrity and confidentiality.
5. **Continuous Improvement:** Owl Vision should be built on a framework that allows for easy updates and maintenance based on real world feedback from teams and relevant personnel and staff.
6. **Ease to Retrain Model:** Owl Vision's algorithm should be easy to retrain and refit to current data. As years go on its important that Owl Visions algorithm is retrained and refitted to updated data as it can better recognize changing trends.

Business Assumptions and Dependencies

Assumptions

1. **Data Readiness and Availability:** It's assumed that the data sources mentioned (alumni records, merchandise purchase histories, and previous ticket buyers) are available, well-organized, and can be accessed with minimal constraints.
2. **Continuous Data Flow:** As the software relies on data for its operations, its assumed that new data will continuously flow into the system and can be accessed, and prediction made on said data can happen on the fly.
3. **Infrastructure:** The current IT infrastructure of the athletic department and school systems can support the deployment, maintenance, and scaling of Owl Vision.

Dependencies:

1. **Software Maintenance:** The performance and accuracy of Owl Vision will depend on regular software updates to address issues and algorithm tweaks.
2. **Feedback Mechanism:** The refinement and improvement of Owl Vision will be an ongoing process from its conception. A pipeline for recommending improvements and reporting errors will need to be put in place.
3. **Regulatory & Compliance Dependencies:** The software's operation, especially regarding data handling and privacy, will depend on adherence to any regulatory or compliance standards set inside and outside of the schools policies.

Risk Analysis

Unfortunately, there are several issues with this project that concern me. I'll try to address as many of them as possible with fixes and solutions.

Firstly, the highest risk is data access. Each of the requested data sources has its own data storage methods and standards. Currently, to my knowledge, only IT can access this data. While some of it might be accessible to employees, the raw Structured Query Language (SQL) data we need to train the model comes directly from the database. To address this, either the IT team or I should make a direct copy of the database and its records for development and testing, ensuring that no mistakes are made with potentially sensitive data. Alternatively, mock data can be generated for

development, but the specifications of the production database will be needed before development can start.

Another challenge is the frequency of data access. For instance, if an employee wants to generate predictions for upcoming season ticket sales through Owl Vision, repeated database access will be needed. This poses risks to performance, security, and error management. To mitigate these issues, I recommend creating a separate software system in collaboration with IT. This system, either on a scheduled interval or manually triggered, would copy relevant data to a separate database solely for Owl Vision's use. Advantages include minimal interference with IT operations, a single point of failure for database transactions, and the ability to scale resources independently of other IT services. This approach is efficient, modular, and secure.

Lastly, my availability is a concern. I have a full practice schedule and a rigorous academic workload. While I can start work immediately, I can't guarantee a consistent time commitment each week, especially during the spring semester due to the track and field season. Although it would be beneficial to get credit for this as a senior capstone project, I'm committed to delivering the best software system I can for the athletic departments regardless of credit or not. As of now I plan to be here for two more years for my masters following this academic school year.

A comprehensive risk assessment will be needed once planning advances further, as discussed in the Rough Development Schedule section of this project plan.

Rough Development Schedule

In this section I will discuss a rough development schedule. Due to my unfamiliarity with the university's systems and lines of communication I cannot make an accurate estimate on time required at this point in time. I will be able to provide a more detailed approach once further along in the development life cycle.

Phase #1: Initial Planning

1. Identify stakeholders.
2. Gather an initial set of requirements. (Technical and non-technical)
3. Requirements feasibility assessment
    a. If feasible move to Phase #2
    b. If not feasible, refine requirements and reassess.

Phase #2: Detailed Project Planning

1. Deliverable #1
    a. Data flow, use cases and class diagrams.
    b. Any other necessary system planning diagrams.
2. Confirmation of requirements and approval to move forward with development.
    a. If yes, move to next phase.
    b. If No, reassesses and refine plan.

Phase #3: Development and Prototyping

1. Gather data copy or specifications from IT
2. Begin development.
    a. Weekly progress updates
3. Deliverable #2
    a. Present rough prototype to relevant stakeholders.
    b. Gather and apply feedback.
    c. Repeat Deliverable #2 if needed.

Phase #4: System Testing and Beta Deployment

1. Deliverable #3
    a. Setup production database environment.
    b. Begin beta testing with relevant stakeholders.
    c. Apply feedback.

Phase #5: Final Deployment and Official Training

Before proceeding, a comprehensive security and vulnerability analysis must be conducted. Upon receiving approval from IT and compliance teams, the system can be presented to the stakeholders. Once it receives stakeholder approval, Owl Vision can then be deployed for use.

Detailed documentation on how to use Owl Vision, along with supplementary documents addressing system maintenance and troubleshooting, will be generated and provided.

The system's performance will be closely monitored. Additionally, a structured pipeline for reporting any issues or feedback will be established and maintained.

Phase #6: Further Refinement

At a specified time later or in time intervals support and updated will be provided based on user feedback and requested features.