Problem: It is a difficult task to get information on players' decision-making process in video games. Most information on this subject is limited to players' inputs into their controllers and speculations. One can only make an educated guess on what players were thinking about before making inputs.

Solution: Team Apollo created a model that utilizes a player's gaze positions and information from video game frames to predict their actions before they are made. This information on quantitative data on players' decision-making process.

Stakeholders: Our stakeholders can be divided into two categories. A primary stakeholder that is directly affected by our model is game developers. Secondary stakeholders that would have an interest in our model are hardware and software companies for eye-trackers and virtual reality, and gamers.

Method: A multi-layer perceptron (MLP) was trained using 80% of data extracted from each frame during a high-score 2-hour playthrough of Ms. Pac-Man from the Atari Human Eye-Tracking and Demonstration dataset. The trained MLP was then tested with the remaining 20% of the data. The model yielded an accuracy of 73% on the test data.

Value: Game developers will want to incorporate the information from our model into their video games to create more sophisticated AI and game environments. This will create a more engaging video game experience for players, increasing their satisfaction. A positive public perception of a video game will lead to an increase in revenue for game companies through more sales.

Key Performance Indicators: Game developers can track key metrics to measure the success of a video game that incorporates our model. These performance indicators include game units sold, player-base retention, hours played, and daily active users. These indicators will allow a company to quantify how well a game is performing on the market, as well as track the health of the game.