Session X Presentation X

**Using Artificial Intelligence and Game Theory to Improve Balance in Game Design**

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**Step Two:** Enter a title above capitalizing each word unless it’s an article (e.g., a, an, the). After entering a title, enter the authors’ names.

**Step Three:** we try to study the problem of balance in the design of computer games, which is most apparent in multiplayer games like League of Legends, Starcraft but also in single player games as well. In our research we specifically analyze the champion choices in the game League of Legend. We first use machine learning techniques by fitting a linear regression model for our data set. Then, we use game theoretical concepts to find the optimal strategy for both side of the game (thus the Nash Equilibrium) to find what collections of champions are optimal to select for each team. And by analyzing the result, we try to offer suggestions on how to improve balance of the game.

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