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Insights for Computing Vision Film Production Directive

MAKING AN
IMPACT THAT
MATTERS
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Presentation Overview
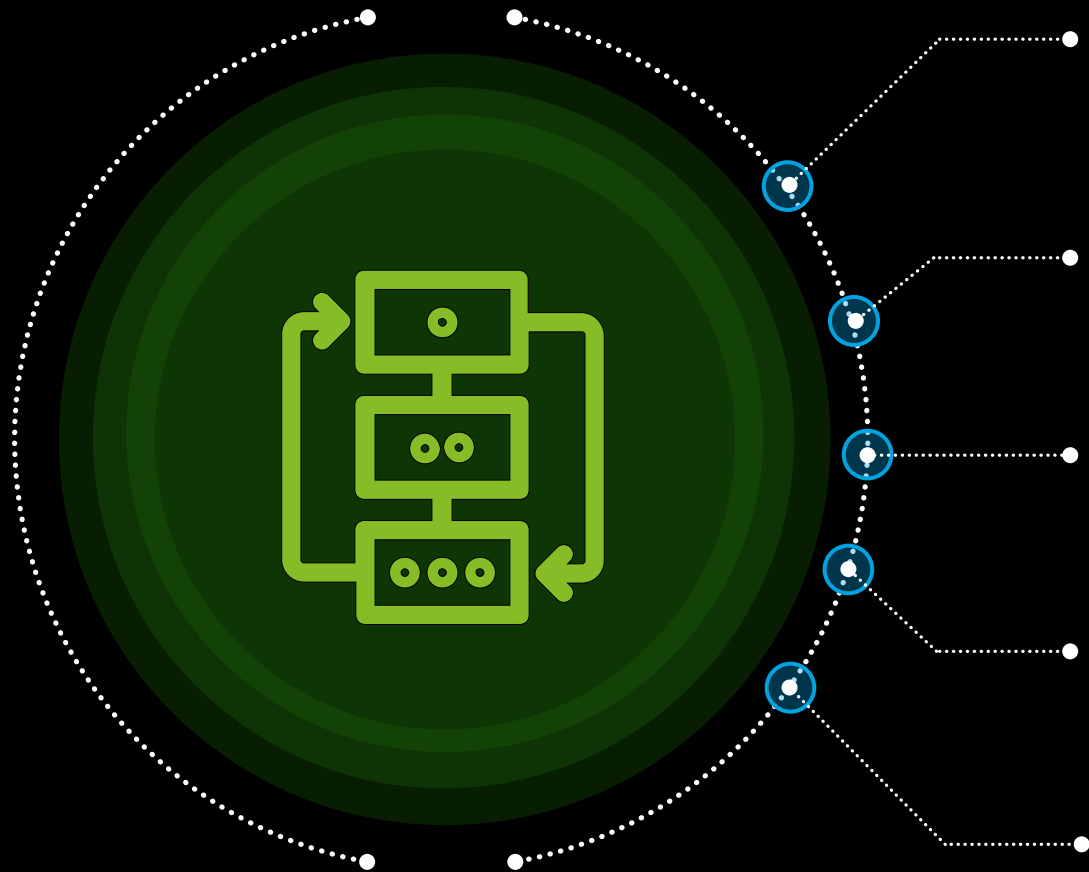
Industry Understanding

Deloitte's outlook on the importance of theatrical releases

Basis of our Investigation

How we structured our research approach

Research Results

Exploring data driven recommendations

Future Insights

Additional research that could provide more helpful insights

Key Takeaways

A summary of our findings

Current Understanding of the Industry
A Positive outlook exiting the pandemic

The importance of box office success is greater than ever

With the rise of streaming platforms, the past decade saw a decline in average number of tickets purchased in a year by the American consumer.

Success in theatre still the most important metric in determine the success of a movie studio:

- Almost half of a studio's revenue is derived from theatrical releases

- Studio revenues driven more by box office tickets now than they were 20 years ago

- 68% of consumers want to watch at least some % of movies in theatres

June 2022 combined ticket sales over $1 billion, a feat that hadn't been accomplished since December 2019.

Selecting an option in line with Computing Vision's business directive

3 Measures of success we'll use to base our recommendations

Which genre tags perform well in terms of raw box officer earnings?

Gross Earnings

Audience Response

Which genre tags perform well in terms of audience scoring?

Which genre tags perform well in terms of profit margins

Net Profit

Gross Earnings

Exploring which genre tags correlate to the highest gross profit in box office

How should we measure gross earnings?
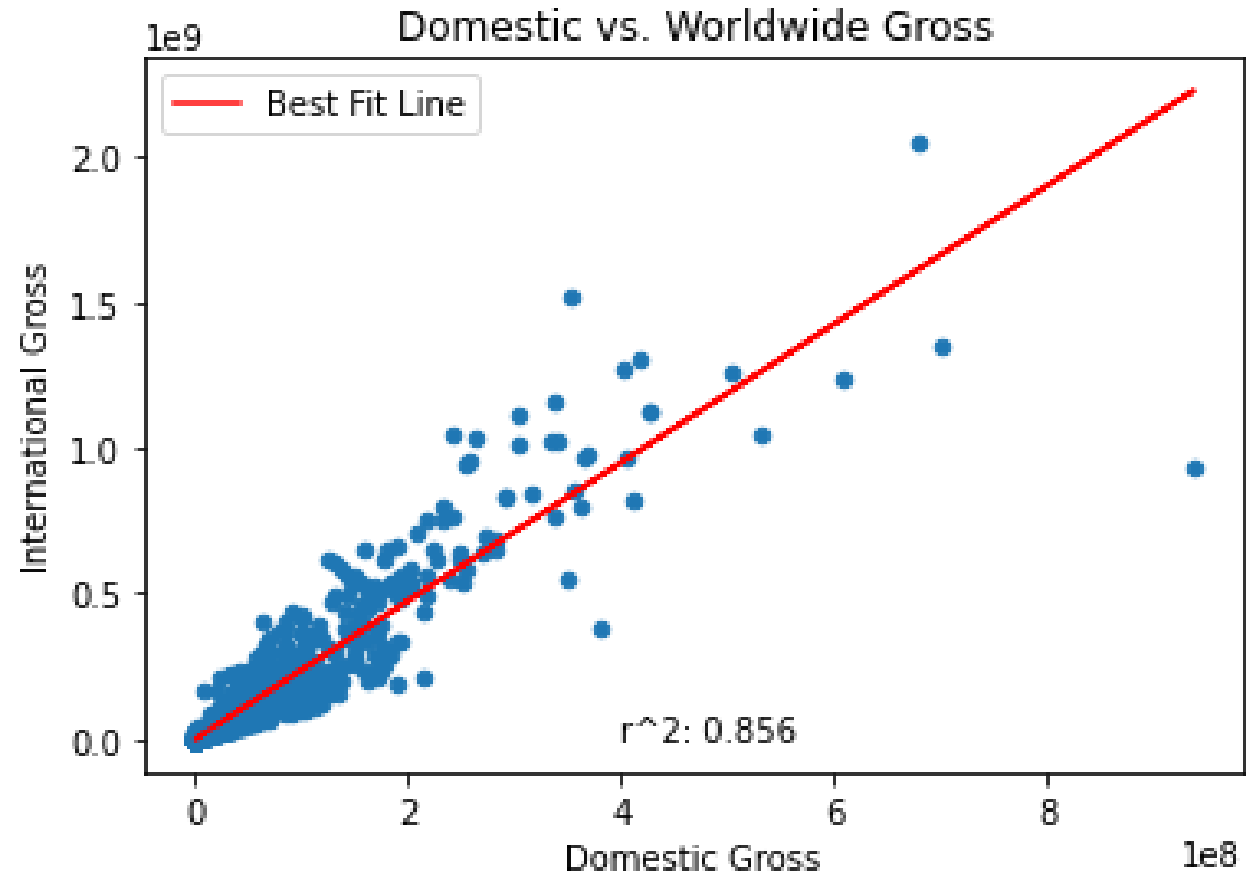
Domestic or Worldwide gross?

A strong correlation suggests we can use either

R-squared value = 0.856

- Domestic Gross is a strong indicator of International Gross and vice versa
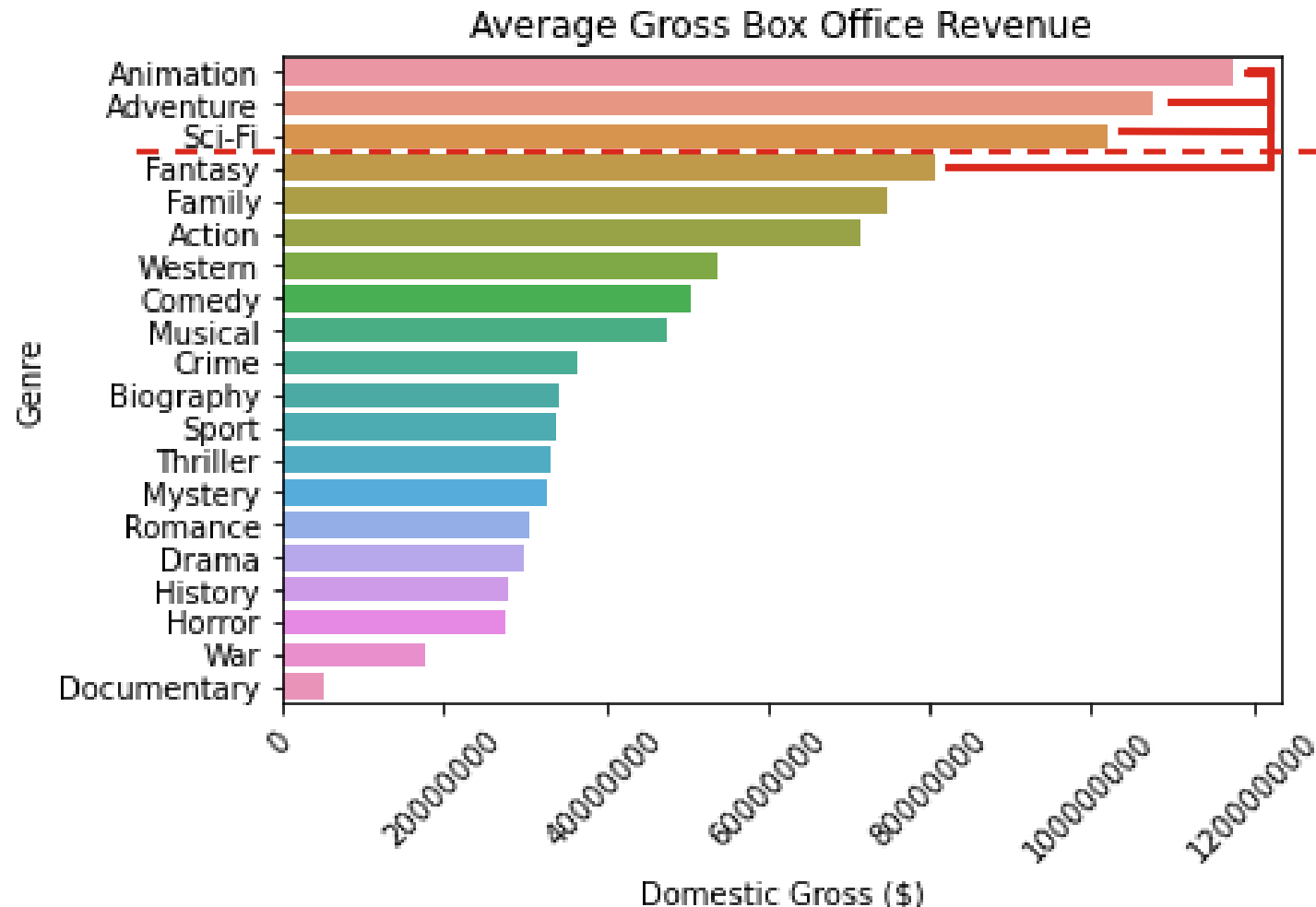
Computing Vision as a new company may not be looking to expand into an international market right away

For these reasons domestic gross selected as the variable of interest in our study.

Box Office Performance by Genre – Domestic Gross
Which genre tags are good predictors?

Bar graph for average gross box office revenue for each genre tag; helps to distinguish which genres perform the best if you're looking to make a film with large gross revenue

T-tests to identify genre tags recommendations

T-test to find if there is a significant difference in the mean gross revenue of two genres.

Testing for difference in mean gross revenue at 95% confidence interval

Recommendation:

Including either an **Animation**, **Adventure**, or **Sci-Fi** tag will turn higher gross box office revenues
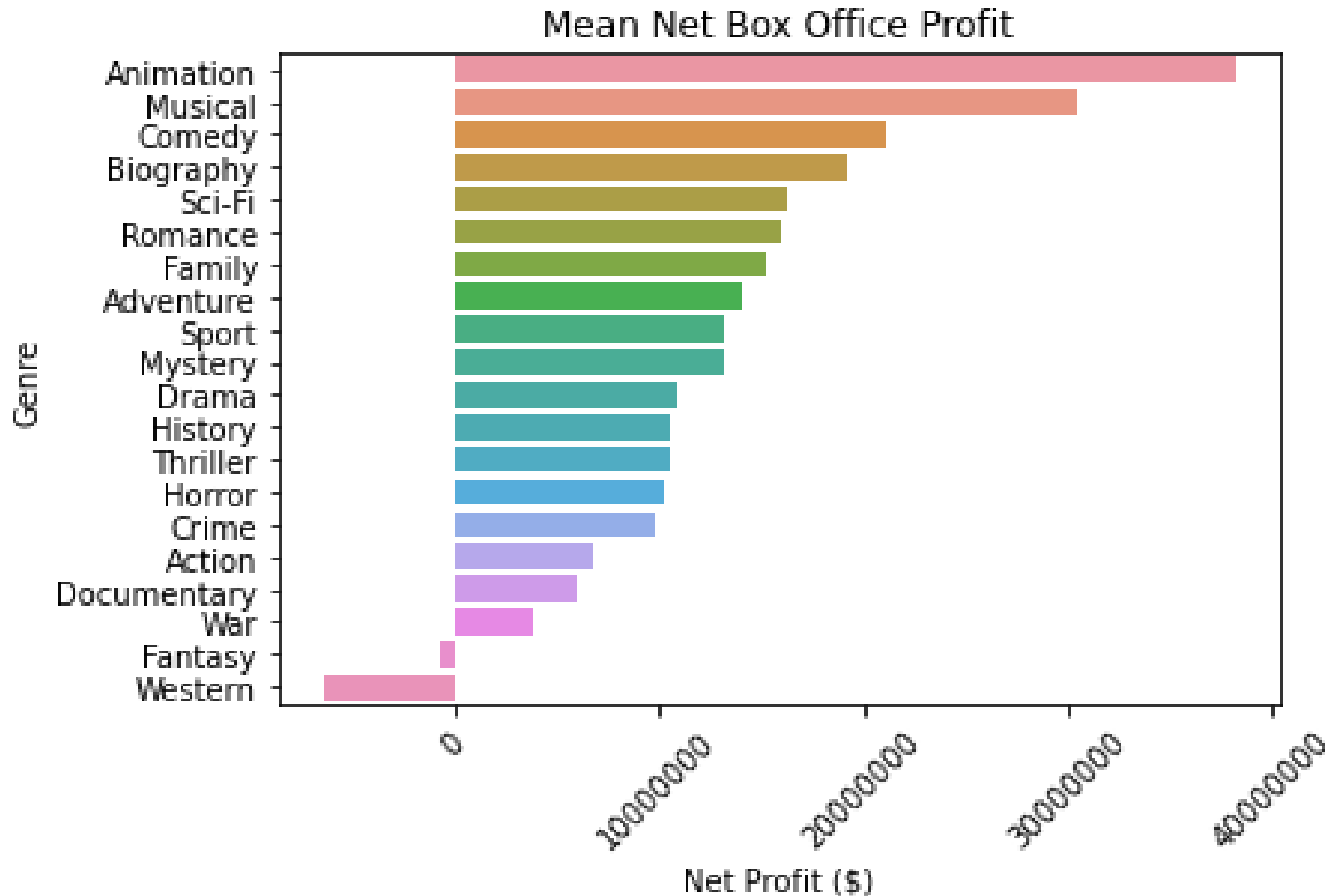
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Box Office Performance by Genre – Net Profit
Which genre tags are good predictors?

Bar graph for average net box office revenue for each genre tag; helps to distinguish which genres perform the best if you're looking to make a film with large net revenue

Animation tag produces significantly greater net profits than any other tag

Following the same process of deciding which tags

Points of interest:

- The Musical genre tag, despite not performing exceptionally well in gross earnings is the second-best genre tag for Net Profit

- Adventure and Sci-Fi are both mediocre performing once budget of production is considered.

- The Fantasy and Western tags show an average net profit less than 0

- **Recommendation:**

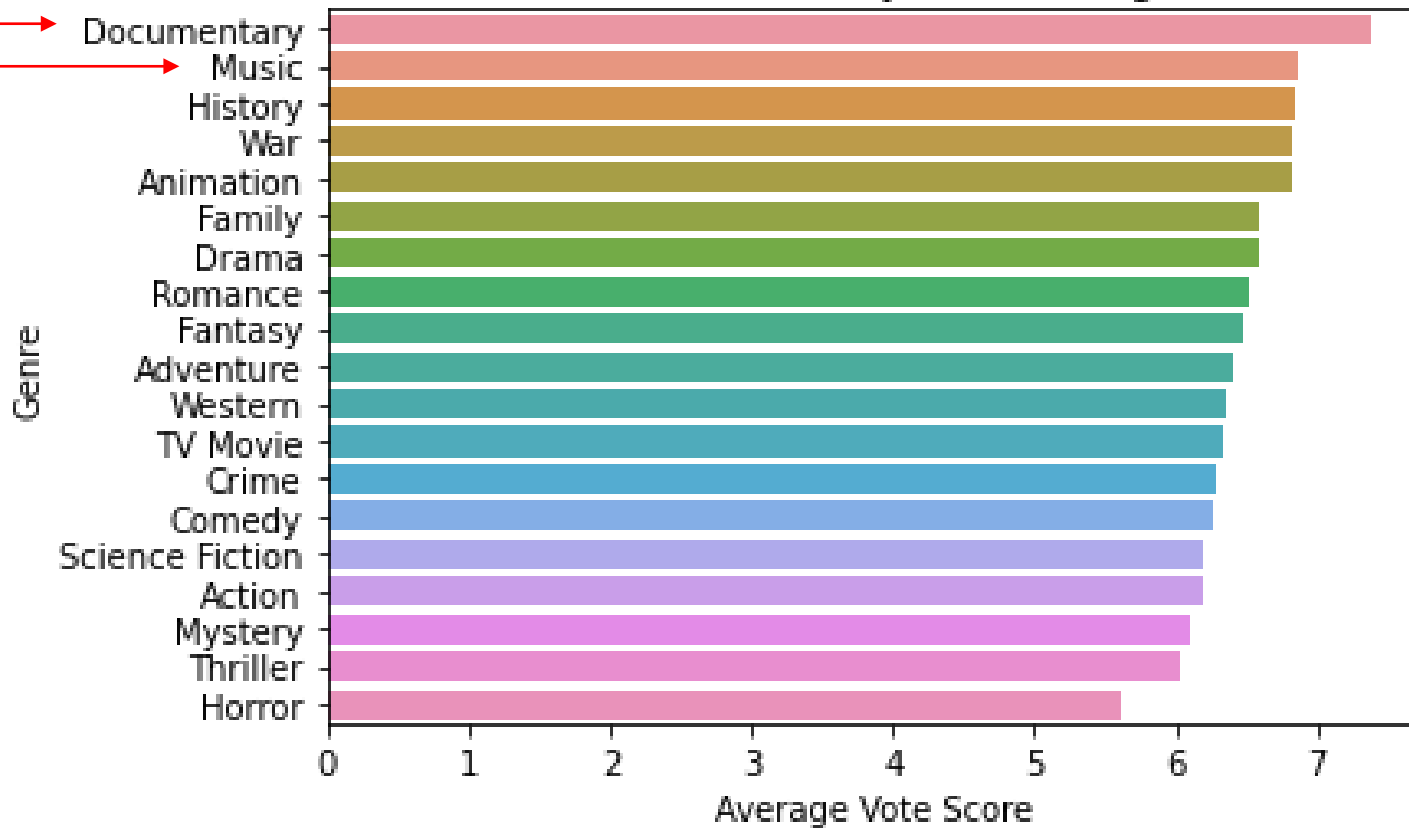Including an **Animation** tag will turn higher net box office revenues

Audience Response

Exploring which genre tags correlate to the greatest popularity and vote average

Box Office Performance by Genre – Audience Response

Using Vote Average to select genre tags that correlate with more well-liked movies amongst their viewing audience

Movie Genres by Vote Average

Documentary tag produces significantly greater popularity score than any other tag

Points of interest:

- Movies that contain a Documentary or Music tag have the two highest mean vote averages.

- Comparing the 2 genres, Documentary is a standout in terms of average votes

- Genres perform relatively the same in vote scores

Including a **Documentary** tag will give the greatest likelihood of producing a film that produces a lot of.

Bar graph for average vote score each genre tag; helps to distinguish which genres perform the best if you're looking to make a film that is well received by a viewing average

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Box Office Performance by Genre – Audience Response

Using TMDB's popularity scoring to select genre tags that correlate to greater internet traffic

Movie Genres by Popularity (Based on TMDB Metric)

Adventure tag produces significantly greater popularity score than any other tag

TMDB's popularity score calculated from:

- Number of votes on the TMDB website that day
- Number of views on the TMDB website that day
- Number of users who "favourited" it that day
- Number of users who added it to their watchlist that day
- Release date
- Number of total votes
- Previous days score

Popularity score can essentially be thought of as the ability of a film to generate positive internet traffic

Recommendation:

Including an **Adventure** tag will give the greatest likelihood of producing a film that produces a lot of internet traffic

Bar graph for average popularity score for each genre tag according to TMDB's formula; helps to distinguish which genres perform the best if you're looking to make a film that produces large amounts of clicks on the internet

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Future exploration

Additional research that could provide more helpful insights

Future Exploration

Key ideas to keep in mind navigating Computing Vision's startup

1

Genre Combinations
What are good genre pairings? Certain combinations may perform better than the sum of their parts

2

Talent Recommendations
Who are the most experienced Actors, Producers, Writers, and Directors for the genre recommendations we've provided?

3

Optimization
Use of linear programming mathematical model to identify combinations of genres and talent that maximize profit.
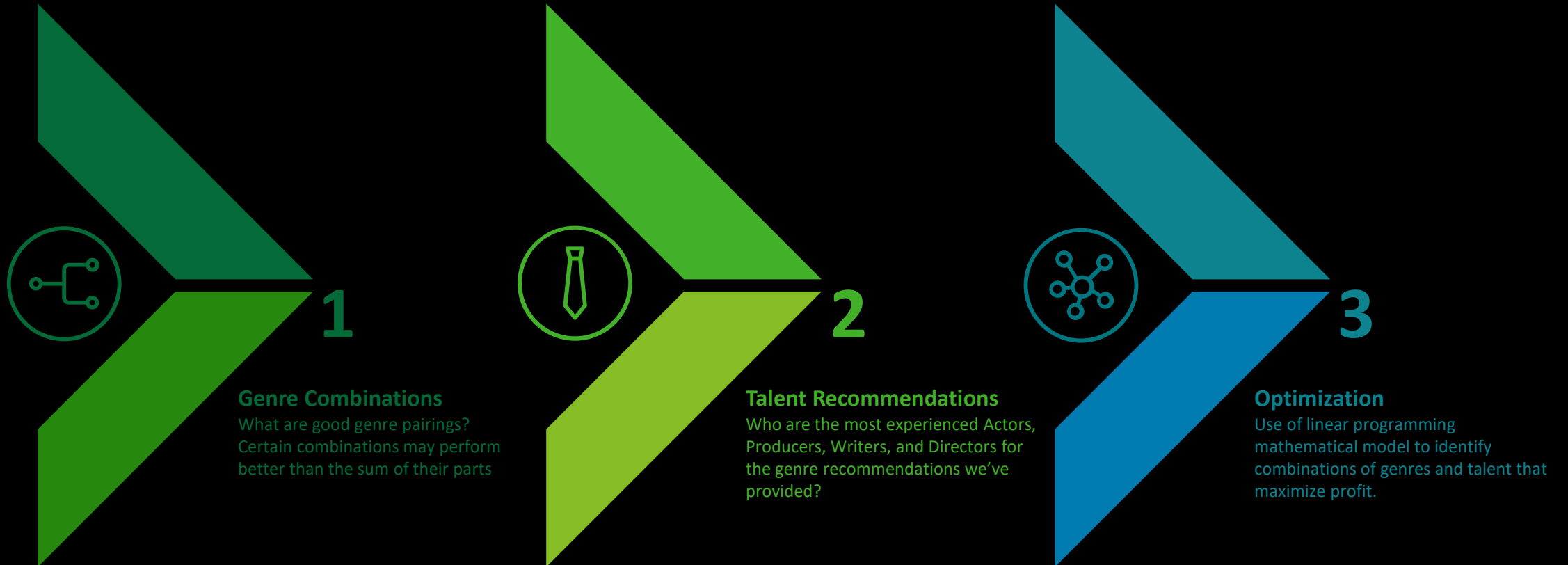
Key Takeaways

A summary of our findings

Lights, Camera, Action!

Key ideas to keep in mind navigating Computing Vision's startup

Gross Earnings
If strategy directs for the greatest raw box office earnings.
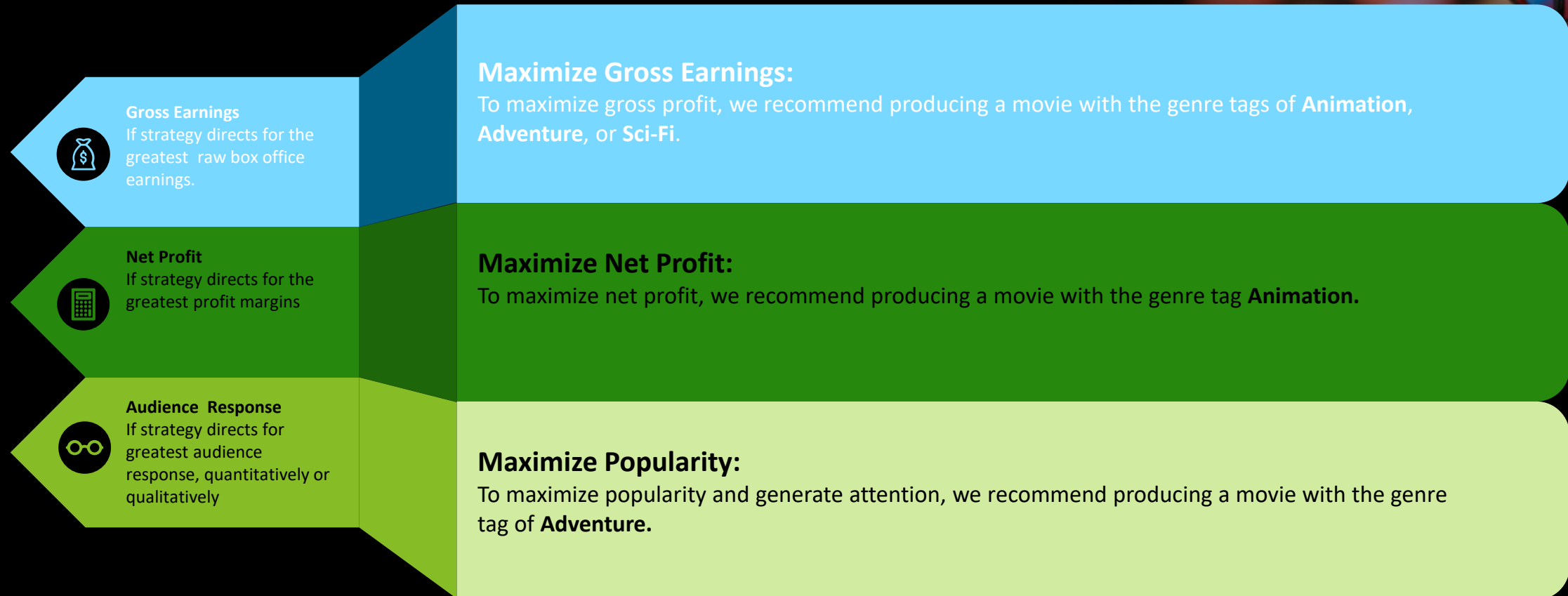
Maximize Gross Earnings:
To maximize gross profit, we recommend producing a movie with the genre tags of **Animation**, **Adventure**, or **Sci-Fi**.

Net Profit
If strategy directs for the greatest profit margins

Maximize Net Profit:
To maximize net profit, we recommend producing a movie with the genre tag **Animation.**

Audience Response
If strategy directs for greatest audience response, quantitatively or qualitatively

Maximize Popularity:
To maximize popularity and generate attention, we recommend producing a movie with the genre tag of **Adventure.**

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Thank you for your time

Any questions?

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