

With a little math, predicting Oscars is no problem

Harvard senior takes opinions out of predicting



SUZANNE KREITER/GLOBE STAFF

Ben Zauzmer, 22, focuses on a film's award history and critics' scores.

By Malcolm Gay | GLOBE STAFF FEBRUARY 19, 2015

Forget the emotional pull of Eddie Redmayne’s turn as Stephen Hawking in “The Theory of Everything.” Ignore the visual sleight-of-hand mastery in Alejandro Iñárritu’s “Birdman,” the filmic stamina of Richard Linklater’s “Boyhood,” the inspired whimsy of Wes Anderson’s “The Grand Budapest Hotel.”

When it comes to predicting Oscar winners, the smart money’s on the math.

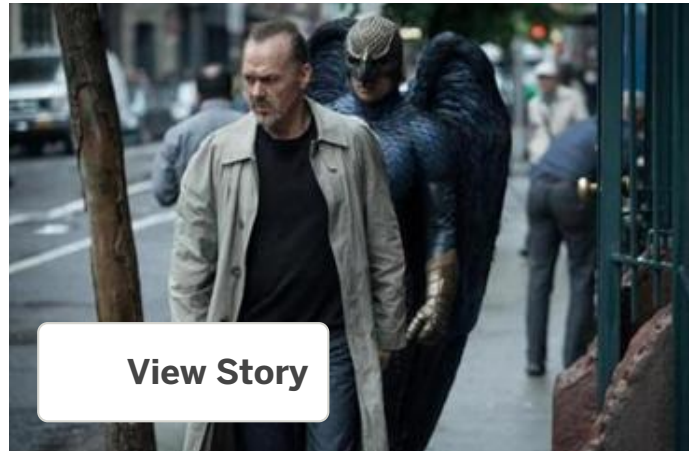
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At least so says Ben Zauzmer, the wiry Harvard senior who for the past three years has been angling to do for the Oscars what well-known numbers cruncher Nate Silver did for politics. Using statistical models to predict each year’s winners, Zauzmer, 22, boasts an accuracy rate of roughly 80 percent during that span — not bad when you consider that Silver himself scored 72 percent cumulatively during his three forays into Oscar prediction.

But whereas Silver tried only to forecast the marquee six awards (the four acting categories, plus director and picture), Zauzmer goes all in, prognosticating on everything from sound mixing (“Whiplash” is his front-runner, with a 38.4 percent chance to win) to documentary feature (“Citizenfour,” at 42.4 percent). For best picture his calculations favor “Birdman,” at 39.9 percent, over “Boyhood,” at 21.8 percent.

“What makes a movie win awards isn’t tied to any one person’s definition of quality,” said Zauzmer, who’s majoring in applied math. “On any given category, the math will actually do better than the math plus my opinions.”

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How to win your Oscar pool: math

Ben Zauzmer is a senior at Harvard studying applied math, and for the past four years, he has used nothing but data and statistics to handicap the Oscars.

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Zauzmer, who by his own admission is “probably more engrossed by Oscar math than anyone else on planet Earth,” eschews a film’s less tangible aspects when looking for data points — things like persuasive storylines, strong performances, or public opinion (especially his own opinion). He concentrates instead on the numbers, using a weighted algorithm he’s created based on a film’s performance in earlier competitions like the Screen Actors Guild awards or SAGs, the British Academy of Film and Television Arts awards or BAFTAs, and aggregate critics scores.

“I let the math tell me which predictors are better at different categories, and which predictors are not so good,” he said.

AND THE OSCAR GOES TO . . .

Using statistical models to make his predictions, Ben Zauzmer boasts an accuracy rate of roughly 80%. His picks in two of the major categories:

Picture

Birdman	39.9%
Boyhood	21.8%
The Grand Budapest Hotel	9.2%
The Imitation Game	9.2%
American Sniper	6.4%
Whiplash	6.4%
The Theory of Everything	6.2%
Selma	1.0%

Director

Alejandro Inarritu, Birdman	55.6%
Richard Linklater, Boyhood	23.9%
Wes Anderson, The Grand Budapest Hotel	10.0%
Morten Tyldum, The Imitation Game	9.5%
Bennett Miller, Foxcatcher	1.0%

For a complete list of Zauzmer's predictions, go to www.bostonglobe.com/oscars.

Zauzmer came to math early. His father, Bob Zauzmer, remembers that as a young child growing up in Philadelphia, Ben would often write his own mathematical equations. “It wasn’t long before he was well past all of us,” said the elder Zauzmer, a federal prosecutor who introduced Ben to film, sports, and Michael Lewis’s “Moneyball,” which led to a love of sabermetrics, a statistical method baseball teams use to chart and improve performance (but more on that later). “That’s when we realized we had a math fan on our hands.”

Zauzmer’s obsession with quantifying film honors came just after high school. He has made his way through the American Film Institute’s top 100 films, and he’s seen all but two best picture Oscar winners (“A Man for All Seasons” and “Terms of Endearment”).

“Ben’s the go-to person to say what movie we need to watch,” said Alex Wirth, a roommate who’s attended several of Zauzmer’s Oscar parties. “Suddenly the Oscars got really nerve-racking.”

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“There are only 300 or 400 movies released each year, and only 50 of those are contenders. You don’t need big data, you need artisanal, handcrafted data.”

Gabriel Rossman, sociologist at the University of California Los Angeles

Silver, who wowed the world with his virtuosic divination of the 2008 presidential election, first tried handicapping the Academy Awards in 2009, going four for six.

As a Harvard freshman in 2011, Zauzmer thought he might apply his own statistical analysis to the Oscars race. He was not alone. Firms like Brandwatch and Microsoft Research were also aiming their number-crunching apparatuses at the awards, measuring everything from social media buzz and past awards, to online betting markets. “People like quantifying things, comparing things, and measuring things: It gives the illusion of rigor,” said Gabriel Rossman, a sociologist at the University of California Los Angeles, who has studied 20,000 movies to determine what qualities most correlate with Oscar nominations (pro tip: make a drama).

Zauzmer soon holed up in the library, combing past awards results and correlating them with Oscar victories to create his data set.

“It didn’t have any relationship to school or extracurricular activities,” said Nicole Granath, a friend. “It was the most time he’d ever spent in the library.”

Unlike baseball or politics, however, there is no major data set for film awards. Many of the awards-granting organizations (including the Academy Awards) keep their membership’s voting habits secret, meaning Zauzmer had to rely on such online databases as IMDb, Wikipedia and even old press releases.

“There are only 300 or 400 movies released each year, and only 50 of those are contenders,” said Rossman. “You don’t need big data, you need artisanal, handcrafted data.”

Which is exactly what Zauzmer created. “This is small, small data,” he said while seated on the leather couch in his dorm suite strewn with empty plastic cups, half-empty bottles of cola, and a tangle of electrical cords. “I’m essentially given one piece of information per category: who won.”

Such small data sets mean a random fluke can throw everything off. Take “The LEGO Movie,” which won this year’s BAFTA award for best animated film, but wasn’t even nominated for an Academy Award. Previously, the BAFTAs were perfect in animated

film: As went the BAFTAs, so went the Oscars.

“A mathematical model would say that whatever the BAFTAs pick is 100 percent going to win,” said Zauzmer. “That’s how math thinks, but you can’t win if you’re not nominated.”

The method isn’t foolproof. Zauzmer stresses that he is not predicting winners, only supplying the relative likelihood of a win for each contender. And of course, lightning has to strike somewhere: Things with a low probability of happening can and do occur.

Nevertheless, Zauzmer says the virtue of his model is its consistency, and this year he is pretty confident it will nail the four acting categories.

“It’s by far the least competitive year for acting,” said Zauzmer, who gives each of the front-runners — Redmayne, Julianne Moore, J.K. Simmons, and Patricia Arquette — a 77 percent or greater chance of taking home hardware.

But the math gets murky for best director. Linklater picked up a BAFTA and a Critic’s Choice Award, but Iñárritu dominated at the bellwether Directors Guild Awards, prompting Zauzmer to give him a 55.6 percent chance of winning, versus Linklater’s dismal 23.9 percent chance.

“The Directors Guild on occasion will make a mistake,” he said, noting that it was very rare. “That could very well happen here.”

Which is just fine by Zauzmer. His Oscar algorithm may lack data, but he’ll be swimming in stats soon enough: He has been hired after graduation as a moneyballer for the Los Angeles Dodgers.

For now, however, he’s content to watch the Oscars on Sunday, hoping his algorithm breaks 85 percent, and just maybe pulling for a winner neither he nor his numbers foresaw.

“Part of me doesn’t want it to go perfect,” he said. “If the Oscars are totally predictable, what’s the fun?”

For a complete list of Ben Zauzmer's predictions go to www.bostonglobe.com/oscars.

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