

Renting a Room of One's Own: Analyzing Airbnb Listings in DC and the Factors Fetching Top Prices

Team Zero

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Github: github.com/georgetown-analytics/team-zero/

Abstract

Airbnb is a global phenomenon that has disrupted the hotel industry, earned the fervent loyalty of legions of travelers looking for more interesting and affordable accommodations, while at the same time alienating many homeowners and neighbors. Hosting on Airbnb has become a lucrative and exciting endeavor for many, but determining the best price for one's listings remains an opaque challenge. This analysis submits Washington, D.C. Airbnb listing data collected on 3 October 2015 to an array of computational, statistical, and analytic techniques designed to 1) explore the nature of Airbnb offerings in DC, 2) determine the factors with the greatest influence on listing price, and 3) provide Airbnb hosts with suggestions for pricing their listing(s) based on key listing and behavioral features. Results indicate that host responsiveness and listing value are key factors influencing price, but may be bounded by price sensitivity on the part of guests.