



# **Guest Experience Personalizer (GEP): Using Data to Improve Loyal Guest Retention and Revenue**

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# Current State of Hotel Loyalty Programs



According to the famous Pareto principle, 80% of hotel revenue is produced by the top 20% of customers - in our case, these are our top loyalty guests.



New areas of competition (especially homesharing sites) are increasing the need for a new approach.



The only way to increase the loyalty program effectiveness is to work on the customer factors.

# Organizational Context

## Authors:

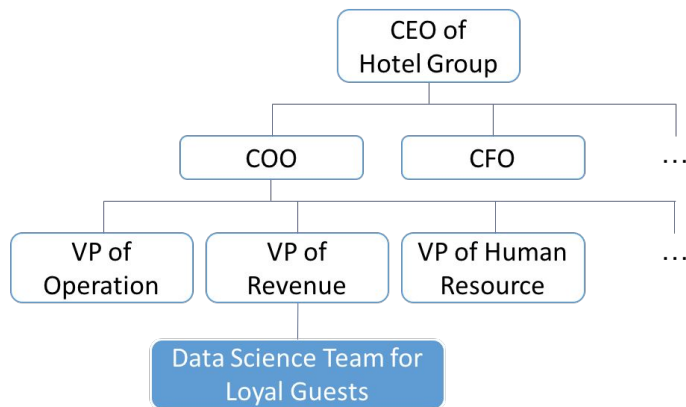
Data Science team

## Data available:

Public data (social media, weather, etc.)

Proprietary ABC Hotel Group data  
(e.g. pricing models, billing history)

External data (demographic data  
appends)



# The Problem

How can we create a personalized, enjoyable, and data-driven experience for our most loyal and valuable hotel guests to improve overall **guest satisfaction**, average **revenue per guest**, and overall **hotel revenue**?



# Our Solution:

## Guest Experience Personalizer (GEP)

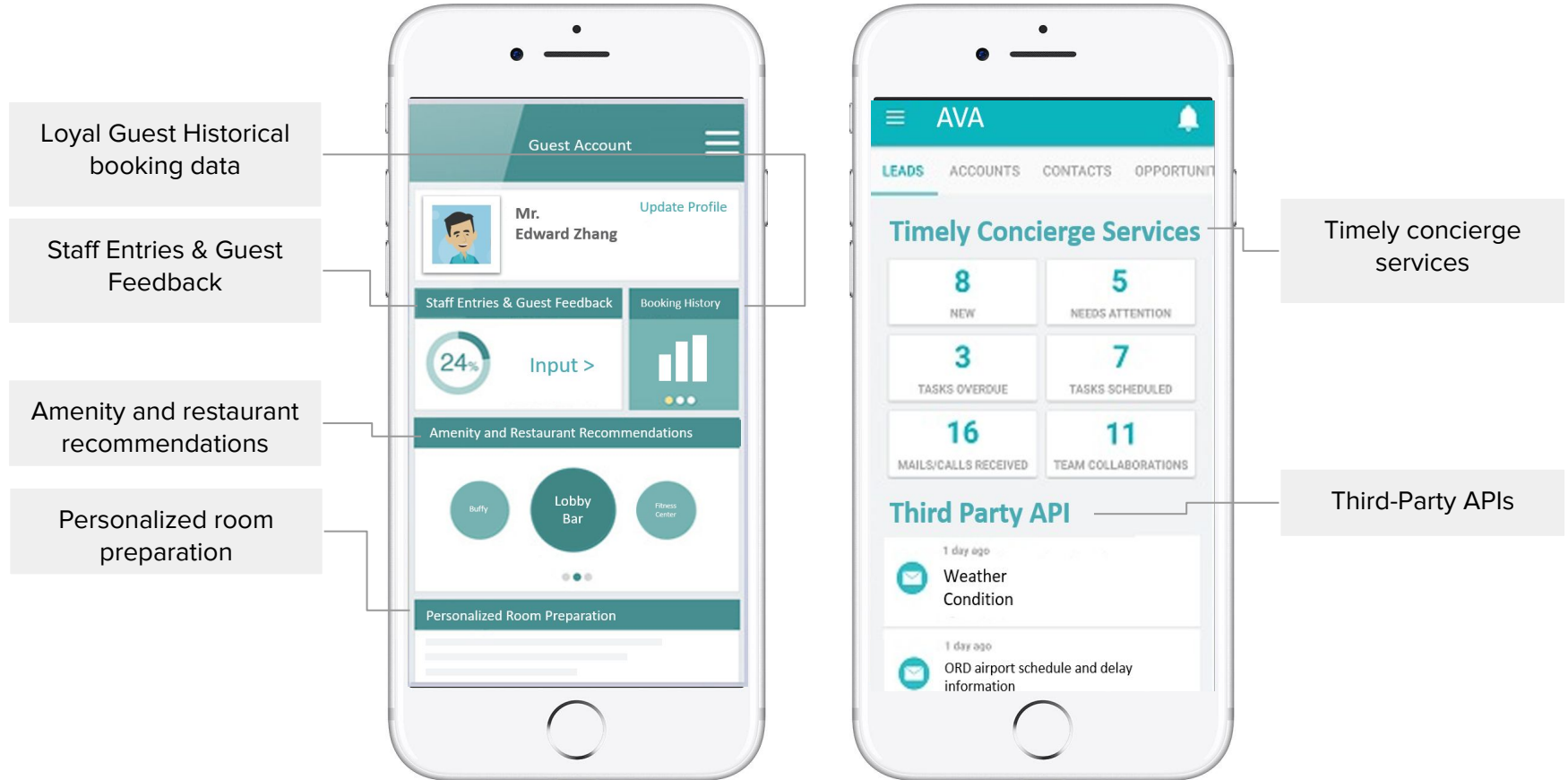
An all-in-one solution that utilizes the data of our highest-paying customers to build more individualized profiles for the most loyal and valuable hotel guests.

AI-powered virtual assistant (AVA)

Augmented guest profile (AGP)



# AI-powered Virtual Assistant (AVA)

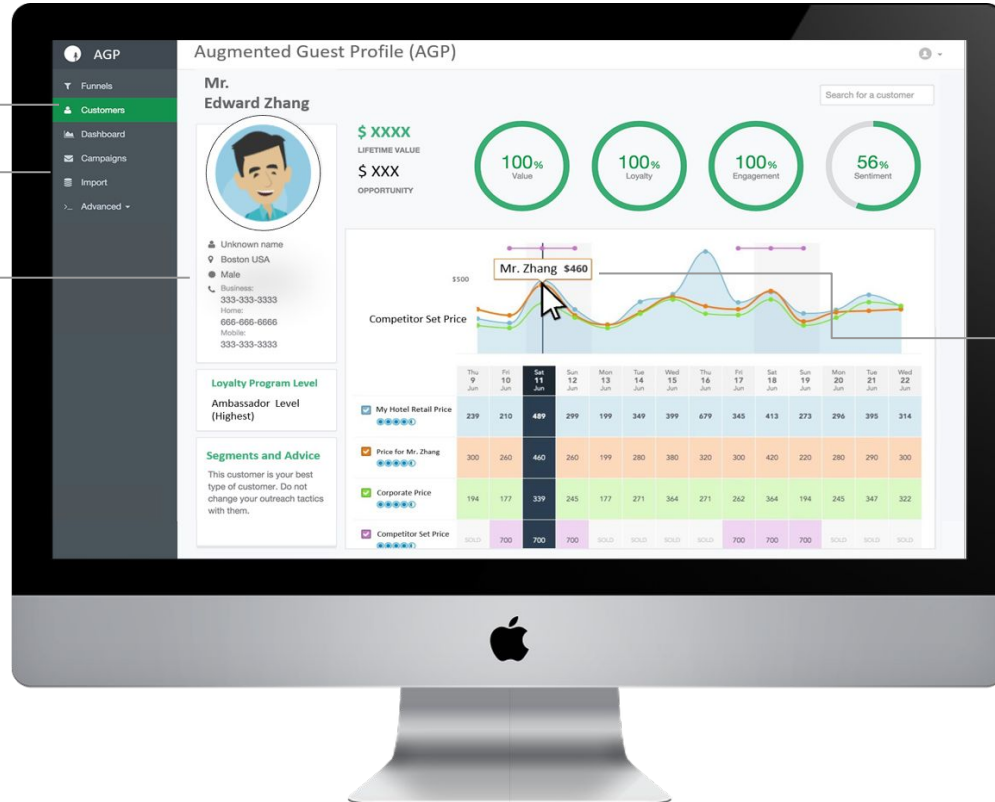


# Desktop Solution - Augmented Guest Profile (AGP)

Hotel's Pricing System

Loyal Guest Historical Booking Data

Engagement Data (i.e. email open rates, transaction history)



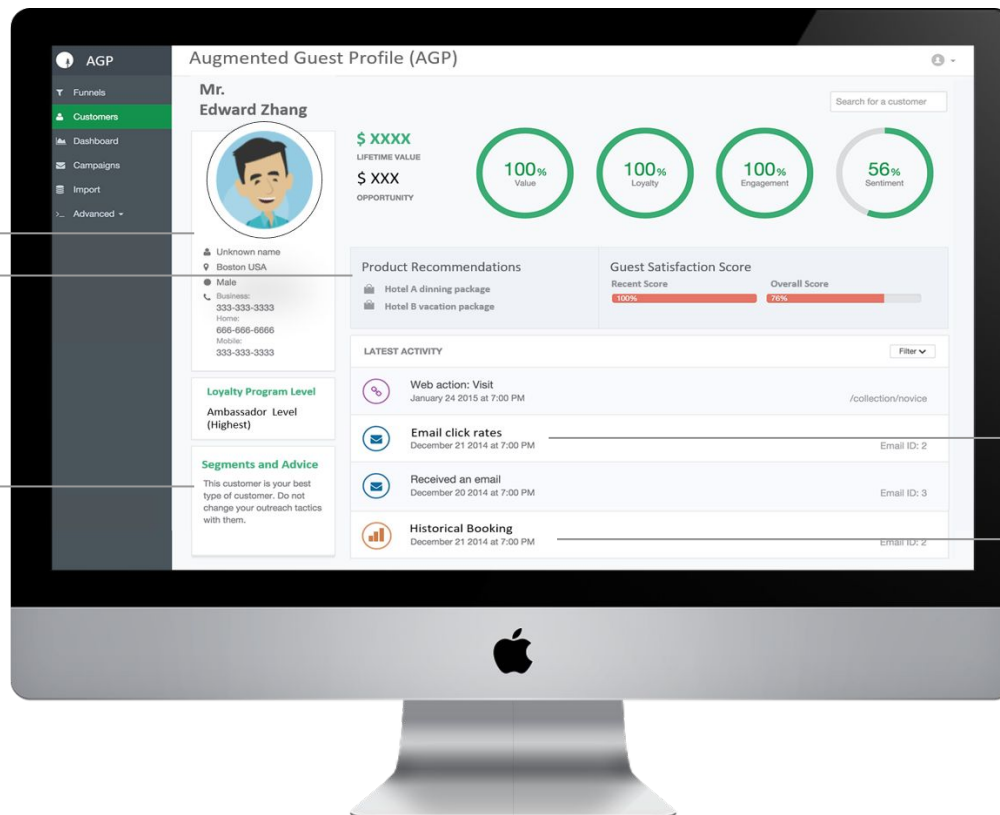
Personalized Pricing

# Desktop Solution - Augmented Guest Profile (AGP)

Demographic  
Details

Targeted  
Promotions

Segmented  
Customer Base



Engagement Data

- email open rates
- transaction history
- preferred mode of communication

Booking History



# Meet Mr. and Mrs. Zhang

## Imagine this scenario:

Top level loyalty guests, Mr. and Mrs. Zhang, are looking to make a reservation for a week-long vacation with their children in a resort hotel.

Using GEP, the hotel manager can plan ahead and make the Zhangs' stay a perfect one. GEP ensures this through four key steps:

Video link:

<https://drive.google.com/file/d/126bOLsWqGvcuQBbS10gHxSTdhywQ3Qjd/view>



# Important Considerations



## Data Privacy

To prevent issues of guest data privacy, hotels must offer guests the option to opt-out.



## Sharing of Loyalty Memberships

To discourage cross-use of loyalty membership cards and the muddying of customer data, hotels must verify member identity upon check-in.



## Upfront Implementation Costs

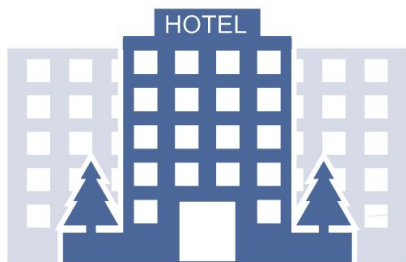
To ensure financial viability, hotels will need to select the level of granularity of the service provided based on projected revenue.



## Law of Small Numbers

Data of unusually high-end guests should not be used in aggregations of guest clusters.

# Conclusion



**In hotels where the GEP platform has been piloted**



Average **guest satisfaction score** ↑  
**12 points** from 70 (on a scale of 100)



Average **revenue per guest account**  
↑ **86 USD** per year.



Average **total revenue for each hotel** has ↑ **5%** per year.

Including personalized services and pricing for loyal guests, the GEP platform provides the ABC Hotel Group with the building blocks needed to begin forecasting market demands, offering promotions and campaigns at scale, and providing scheduled reports and service recommendations to hotel operation team.

**Dear guests of ABC Hotel**  
Thank you for staying with us!

thank  
you

The words "thank you" are written in a dark blue, elegant cursive script. They are surrounded by decorative elements including small blue and yellow flowers, gold dots, and blue swirls.

Sincerely,  
Charlene Chen  
Joanna Huang  
Jennifer Podracky