



2017

BUILDING TRANSFORMATIVE RESULTS WITH DATA SCIENCE

BUILD @ 2019

Oct 23, 2018

“BUILDING OUR WAY”

Ford’s Latest Branding Commercial & Data Science

2018

Building our way there...



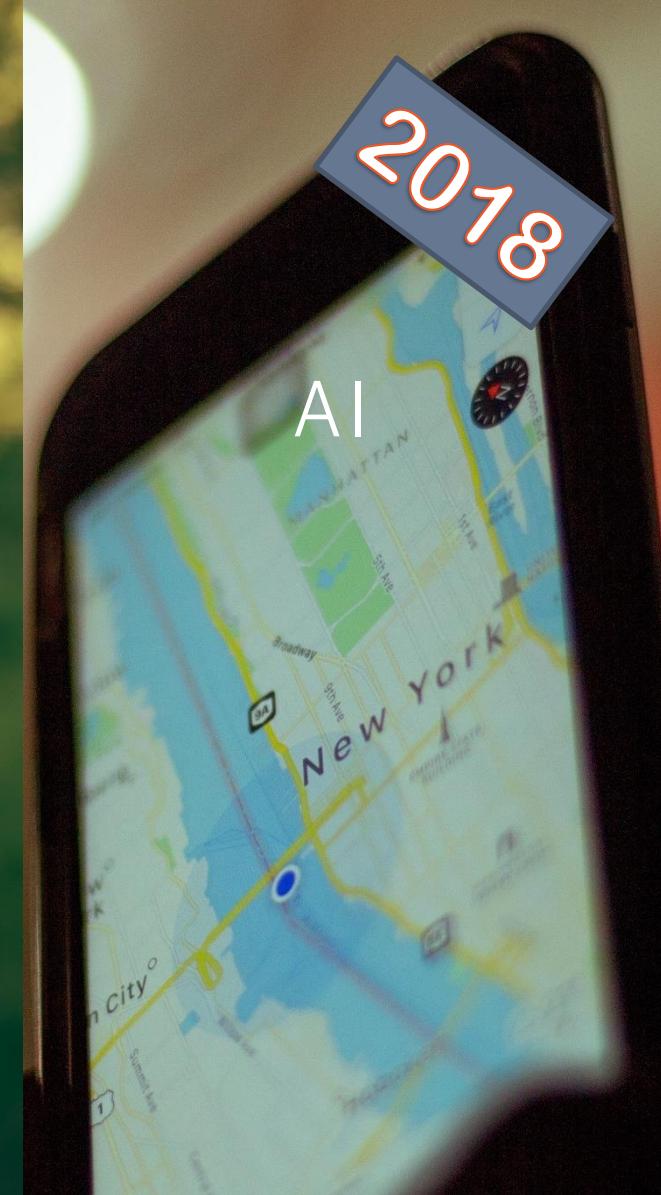


MI



MISSION AI 2020

BI



AI

➤ Travel | Connect | Prosper



Driving Superior Outcomes with AI



OPPORTUNITIES FOR AI-BASED INNOVATION



CLIENTS (OUR LIFELOOD)

- › How do we gain more (fill the funnel)?
- › How do we stay alert and NOT lose loyal clients (prevent spillage)?
- › How do we make sure they have transparency into their spends? Future projections?
- › How do we preemptively maximize their cost-savings opportunities?
- › How do we put complete, accurate, real-time data in our client's hands for self-discovery/control?

TRAVELERS (OUR LOYAL CHAMPIONS)

- › How do we make their experience easy to shop, book, travel, expense, and return to us more often?
- › How do we put their mind to ease that they have the best rate, date, place, amenity, rewards, insurance, and expert-care?
- › How do we assure them after every trip, every month, every year that we (GBT) care?

SUPPLIERS (OUR TRUSTED PARTNERS)

- › How do we highlight (say through Alexa and) their mix allocations for optimal supply-demand-cost-profit structures?
- › How do we ensure our contractual commitments to each other are being met (without voluntary fraud and involuntary leakage)?
- › How do we create exchange referral (bundled) services?

COUNSELORS (OUR RESPONDERS)

- › How do we make sure the malaise and inefficiencies do not set in without compromising our employee satisfaction?
- › How do we mechanize the mundane (like language translations, email parsing, PNR parsing etc)
- › How do we contextually design better UX/UI/DX for offering best choices to customers?
- › How do we build data (sandbox, dev, production) platforms for nearline analytics?

ROADMAP

Charting the path to great results

2019

WHAT WE HAVE DELIVERED?	0-6 MONTHS	6-15 MONTHS	15 MONTHS+
Hotel Recommender	Champion Challenger	TravelDash	Snap-n-shoot Expense
Benchmarking	Flight Recommender	Crisis Alerts Monitoring	Break the ભાષા barrier
Forecasting	Customer Canary	Gilbert, Gaby, Gunther	Create Information Turks
Total Trip Identification	Best week/place to meet	Compass Dashboards	Self-Documenting Data Carts
Hotel Normalization	Dynamic Insights	What-If Savings PI	Alexa – Book a Hotel
Card Triangulation	Pre-sales FAQ Support	Real-time Customer NPS	Premier Insights by Gilbert
Outlier Control	Insights Automation	One-click Booking (+Rail/Car)	Opportunity Reminders
Book “Now”	24/7/365 DNA EOY	In-Trip Recommendations	Satisfaction Surveys
Prospect Harvesting	MM Client Prospecting	Trip Docket Visualizations	Dead Inventory Optimizations
Attrition Modeling	Expense Matching	Touch “Once”; Don’t “Reshop”	Gracias Road Warriors
Chatbot Automation	Preemptive Messaging	Meet your Best TC, Supplier	Omnichannel Monitoring

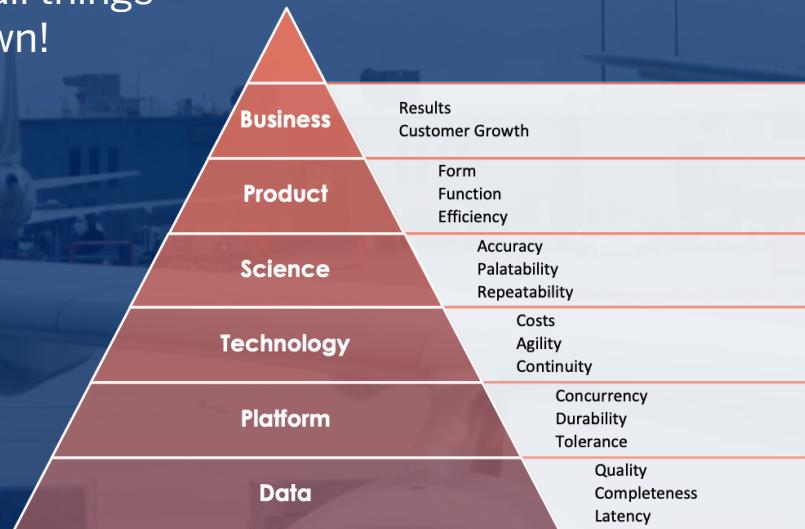
DON'T BE A DATA SCIENTIST

July 2020

2020

- Explore, Engage, Engineer, Execute, Operationalize – success is socialized, failure is ostracized
- Respond, Reset, Rebound – where do you suppose innovation and science fits?
- Apollo 11's still sits at Smithsonian Museum (on Earth): all things – even DS – comes down!

**“Disposable”
Must have a strong innovative constitution**



1. Don't hoard data. Collect "good" data. Justify data with a business outcome – from the onset.
2. Stop building top-floors until foundational elements are stronger. Anchor expectations in reality.
3. Stop boxing yourself to your two immediate neighbors – a successful outcome is one where there is alignment across multiple layers; represent other PoVs
4. Showcase, showcase, showcase. You are your own brand: "listen" and constantly educate others what you do/want. Earn respect.
5. Action the outcomes like you own it at every layer; treat with urgency; there isn't a knight in shining armor to help you out.
6. Build KPIs upfront; and stick to them until a good logical conclusion; don't alter them along the way; create new explorative hypothesis if necessary but do not abandon half-way.
7. Evaluate 4Ps – purpose, prowess, passion, and pride every step of the way. If you don't have at least three of the 4Ps, quit. Or you may also choose two of purpose, pay, or people to motivate you. Whatever the reasons, stick to them.
8. Skill up and skill out. Scale up and scale out; there are other problems/organizations/enterprises that can use your capabilities & solutions.
9. Your boss only cares when you reach the finish line; and that finish line is one that is defined by your overlord layer, not underlord.
10. There is always a place for organic innovation; those who succeed are able to balance operational excellence and still maintain the innovative hum that generates more revenue (goals) or saves costs (efficiencies).
11. Everyone has a different skill, process, nomenclature, and interpretation of the problem. Adapt.

TRIBUTE TO THE TEAM

Amazing innovations, Dampened Results

“Offer” Insights

Average Nightly Rate **113.60 USD** Total cost **227.20 USD**
Best value for your selected dates!

Your peers stay here **33% of the time** (ranked #1 for this location)

Pointe Hilton Tapatio Cliffs Resort
1111 N 7th St, Phoenix, AZ
6.2 mi to Amex GBT, Phoenix

1 King 1 Bedroom Suite
Spread out and enjoy 550 sq. ft. of modernized space boasting all the comforts of home with a bedroom, separate living area, and contemporary furniture

Cancellation Policy: There is a credit card required for this reservation. Free cancellation before 11:59pm local hotel time on 24 September 2019.

Oneclick Booking

Need help? Chat to an agent Amex GBT local office 01234 567890

NOT SURE? HERE'S THE 2 OTHER RECOMMENDATIONS WE HAVE FOR YOU:

You rated this highly last time you stayed
Residence Inn by Marriott Scottsdale North Total cost **239.90 USD**
0.9 mi to Amex GBT, Phoenix

You rated this highly last time you stayed
Embassy Suites by Hilton Phoenix Scottsdale Total cost



Pricing Intel

Recommendations for your business trip to Amex GBT, Phoenix

Activity Intel

GLOBAL BUSINESS TRAVEL TRIP RECOMMENDER

\$444
Book Now

W Scottsdale
4.3 ★★★★☆ (1,056) · 4-star hotel

- \$20 gift card eligible
- Company Preferred
- Popular. 7 booked in last 10 days

	S	M	T	W	T	F	S
March							
	1	2					
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						

\$323
Book Now

Hilton Garden Inn Scottsda...
4.3 ★★★★☆ (312) · 3-star hotel

- \$20 gift card eligible
- Company Preferred
- Popular. 7 booked in last 10 days

	S	M	T	W	T	F	S
March							
	1	2					
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						

\$342
Book Now

Hilton Scottsdale Resort & ...
4.3 ★★★★☆ (833) · 4-star hotel

- \$20 gift card eligible
- Company Preferred
- Popular. 7 booked in last 10 days

	S	M	T	W	T	F	S
March							
	1	2					
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						

Seasonal Intel

Amenity Intel

Geo Intel

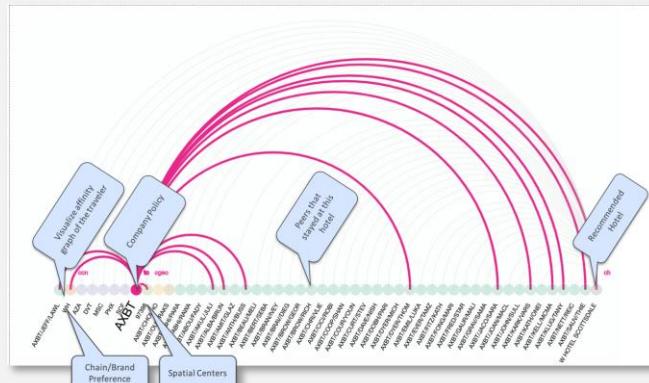
TRIBUTE TO THE TEAM

Amazing Innovations, Dampened Results

SMS BOOKING



TRIP RECOMMENDER



OBT/Mobile Ready

Explainable Results

FLIGHTS & GROUND



"Total Trip" focus

TRIBUTE TO THE TEAM

Personalized Servicing

Analytical Snapshot

The screenshot shows the American Express Global Business Travel (GBT) mobile application's "Travel Snapshot" feature for September 2019. At the top, it says "GLOBAL BUSINESS TRAVEL" and "SEPTEMBER 2019 TRAVEL SNAPSHOT". Below that, a message says "Hi Victoria, Here's what the year looks like for you so far!" followed by four icons with statistics: 27 Business Trips, 14 Dates Visited, 64,097 Air Miles Traveled, and 30 Hotel nights. A "DID YOU KNOW?" section mentions discounted rates and preferred extra perks. It also shows a total of \$59,050 spent APPROX. YTD, with breakdowns for On air, hotel, and ground booked through Amex GBT YTD, and recent reservations from American, Marriott International, and Hertz. At the bottom, there's a call to action to "MAKE THE MOST OF YOUR TRIP!" and download the Amex GBT mobile app.

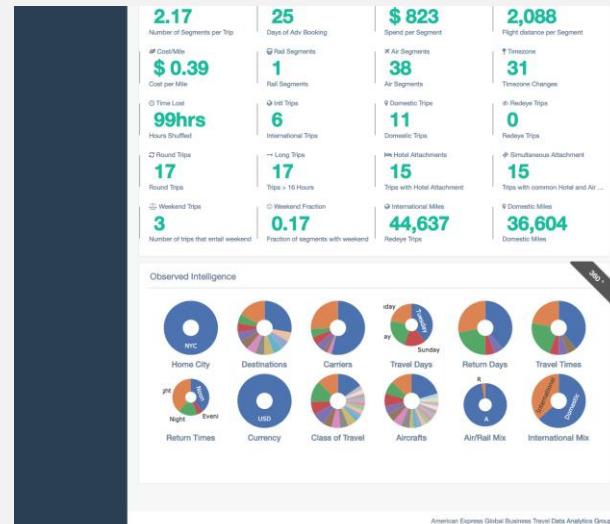
The screenshot shows the American Express Global Business Travel (GBT) mobile application's user profile and destination section. The profile for "Jeffrey Lawlor" is displayed, showing he is the "Most Valuable Traveler" from Jersey City, NJ, USA. Below the profile, a bio states: "Jeffrey M. Lawlor is the VP of Data Platforms and Analytics at American Express Global Business Travel. He manages end-to-end platform, infrastructure, and analytical services for global customers spanning travelers, travel managers, suppliers, global clients, and enterprise initiatives." To the right, a "Destinations" section lists four cities: PHX (Phoenix), LON (London), SFO (San Francisco), and CHI (Chicago). Each destination card features a city skyline, a count (9, 6, 3, 3 respectively), and the question "Are you ready to fly?". A "Mobile & Travel Vitals Ready" banner is overlaid on the left side of the destinations section. At the bottom, there are buttons for "Air", "Hotel", and "Car". The top right corner of the screen has a "DEJUG" watermark.

TRIBUTE TO THE TEAM

Personalized Servicing

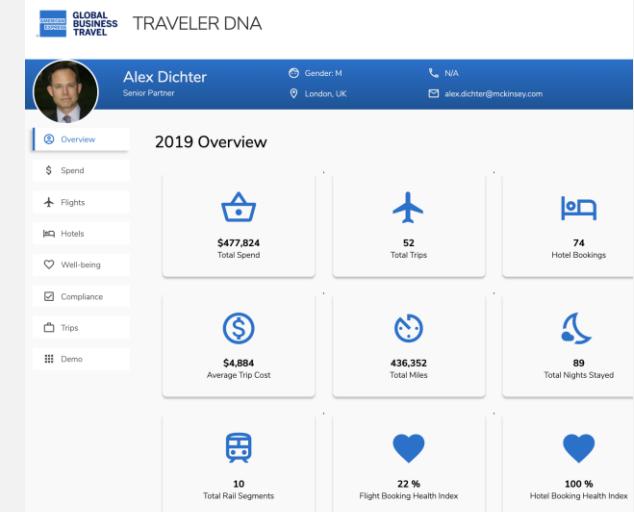
TRAVELER 360

- Ready for OBT, Mobile, Omnichannel, Duty-of-care integration



Cutting Call
Courtship Time

TDNA



Traveler
transparency

TRIBUTE TO THE TEAM

Vision, Speech and Text

Attachment 5 – British Airways Europe (excluding Spain and United Kingdom) to Africa, Asia and Australasia, Caribbean and Middle East pricing

Valid from 20 August 2016 until superseded

AZ is IATA area 2 (Africa, Middle East and Europe) A3 is IATA area 3 (India, Asia and Australasia)

Fare basis

- Prime booking code applies (fare basis starts with the character letter as the booking class).

Operating and Marketing Carriers

- Permitted on British Airways marketed flights, using BA 125 ticket stock.
- All bookings must contain a sector between London (any) and a point within the Africa, Asia and Australasia, Caribbean and Middle East or an iberia operated flight.
- When connecting to a British Airways or iberia marketed flight to/from London, bookings may contain additional connecting sectors within Europe on flights operated by Aer Lingus, Air Berlin, Air Nostrum, British Airways, British Airways City Flyer, Iberia, Iberia Express, KLM, KLM Cityhopper, Lufthansa, Ryanair, TAP Portugal, Thomas Cook Airlines, Virgin Atlantic and Virgin Express.
- When connecting to a British Airways or iberia marketed flight to/from London, bookings may contain additional connecting sectors within Africa using Comair operated flights.
- When connecting to a British Airways or iberia marketed flight to/from London, bookings may contain additional connecting sectors within the middle east using royal jordanian or Qatar operated flights.
- When connecting to a British Airways or iberia marketed flight to/from London, bookings may contain additional connecting sectors within/between Asia and/or Australasia on flights operated by our oneworld partners.

Full details of additional connecting sectors can be found online at <http://www.britishairways.com/cms/global/pdf/corporate/corporate-ticketing-instructions.pdf>

FARE RULES OF DISCOUNTED FARES (penalties, advance purchase, minimum stay and ticketing time limit)

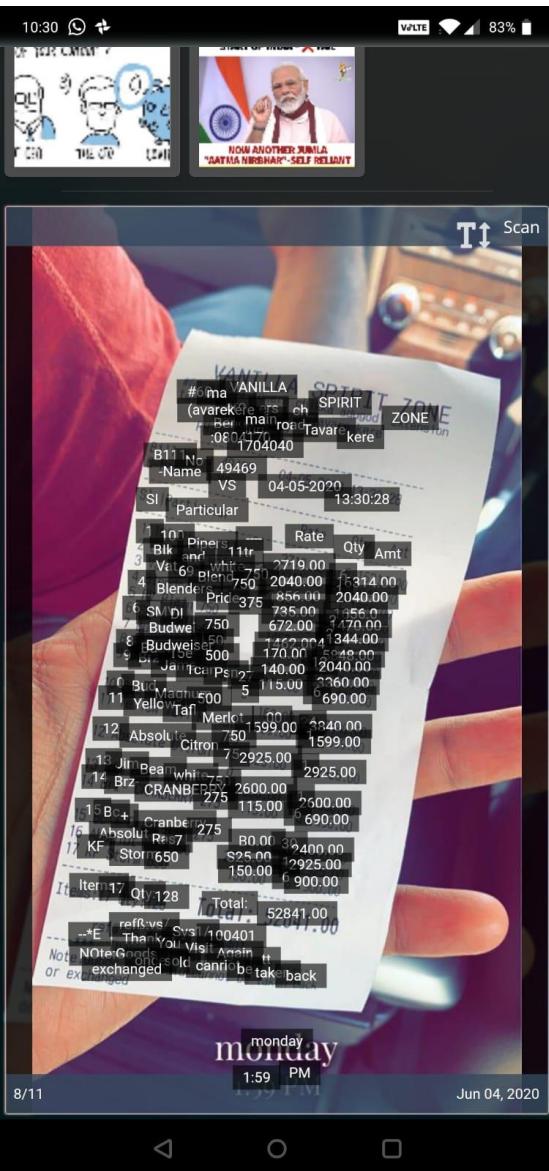
- Penalties - public fare rules apply.
- Advance purchase and Ticket Time Limits – public fare rules apply.
- Minimum Stay - public fare rules apply.

Page 5 of 7
EU R-D/BA



TRIBUTE TO THE TEAM

Vision, Speech and Text



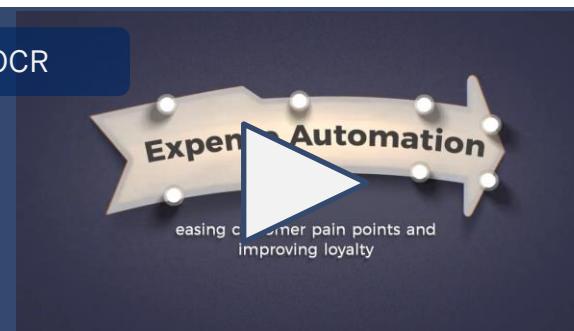
Vision Examples

Crowdsource TravelAR 360



Yellow text is auto annotated

Expense Automation & OCR



TRIBUTE TO THE TEAM

Bots and Process Automation

Browser

The screenshot shows a web page for the Watson Developer Conference. At the top, there's a navigation bar with links for Agenda, What to expect, Pricing, Speakers, and Attendee info. Below this, a section titled "Location & travel" features a large button with a star icon. Further down, there's a map of San Francisco with a red pin marking the location of the Innovation Hangar. A callout box provides details about the Innovation Hangar, stating it's at 2268 Chestnut St Suite 638, San Francisco, CA 94123, with a 4.3 rating and 27 reviews. It also mentions the event will be held at the Innovation Hangar which is directly adjacent to the Palace of Fine Arts in the Marina District.

Read it

Office

The screenshot shows a Microsoft Word window with an email message open. The recipient is listed as "Jeffrey Lawlor". The subject line is "Watson Developer Conference 2018 in San Francisco". The body of the email reads: "Dear Jeff: I would like to go to the Watson developer conference 2018 in San Francisco. The conference is scheduled for April 12, 2018. I hope to have your approval. Sincerely, Satya". A large blue watermark with the text "Think travel! We will reach out to you. We know you. We care..." is overlaid diagonally across the message. In the top right corner of the Word ribbon, there is a circled "AMEX GBT" logo.

Write it

OS

The screenshot shows a Windows search interface with the query "Traveling for five days to San Francisco on April 11, 2018." Below the search bar, there's a "Type here to search" input field and a microphone icon. A "Submit" button is visible at the bottom right. The search results show a "Quick Booking" card for the "Watson Conference".

Say it

Place, Think, and Dash...

TRIBUTE TO THE TEAM

Bots and Process Automation

AMERICAN
EXPRESS
GLOBAL
BUSINESS
TRAVEL

Information at your fingertips

Find the best report that gives you the data you need

Traveler's personalized
Genie/Alexa

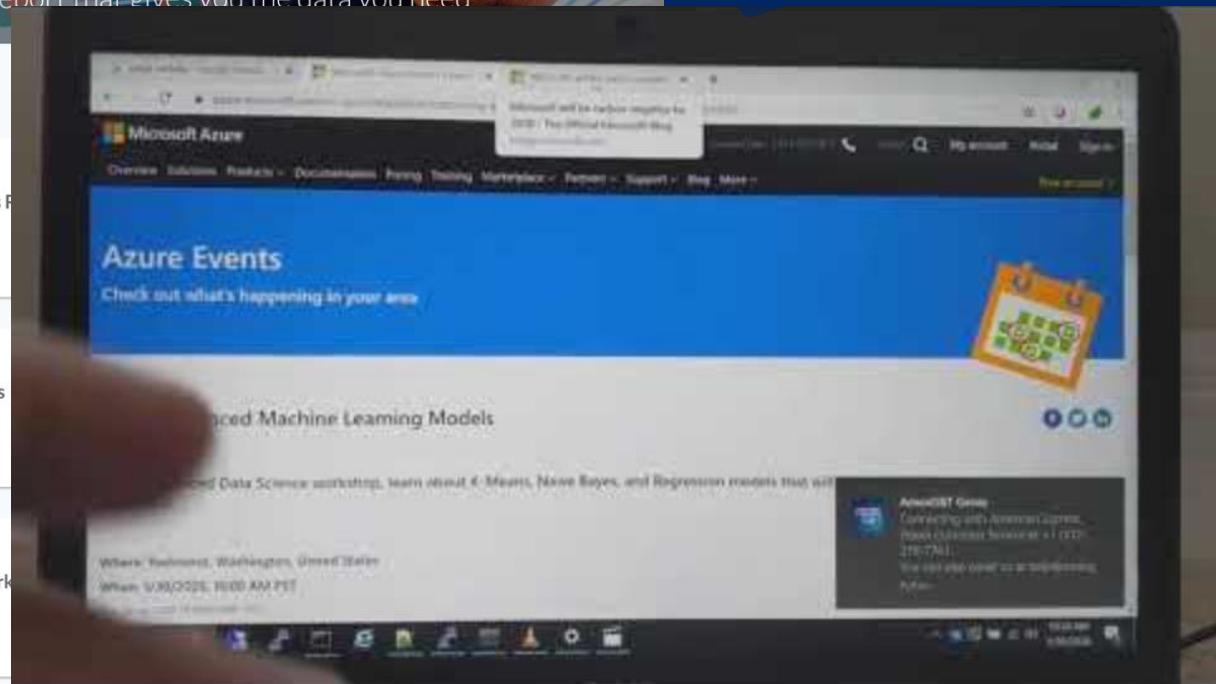
Your MI requests on a
self-service MI portal

The screenshot shows a user interface for a self-service MI portal. At the top, there is a search bar labeled "Search". Below it is a grid of report cards:

- Advanced Purchase Report
- Air Savings Report
- Air Carrier Summary Spend
- Car Savings Report
- Car Spend by City
- Airline Market Share
- Flight Activity Analysis

At the bottom of the screen, there is a chatbot interface with a message history:

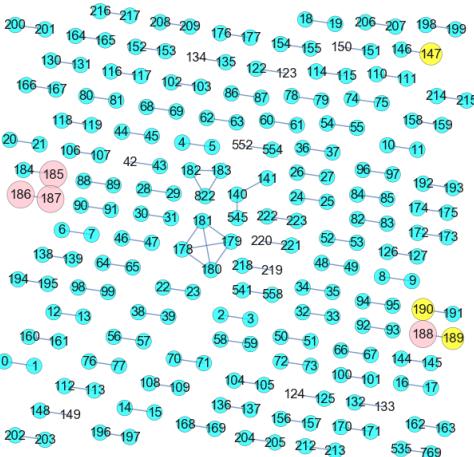
- AMEX GBT: Our team is there for you, 24/7. Moreover, AMEX GBT prides itself in making sure the traveler has a positive experience, even in the most difficult of travel times. We believe in proactive action vs. leaving the traveler to worry, frustration, and doubt. Knowing where your travelers are, and providing them around the clock support, is absolutely
- User: hello
- AMEX GBT: Howdy!



TRIBUTE TO THE TEAM

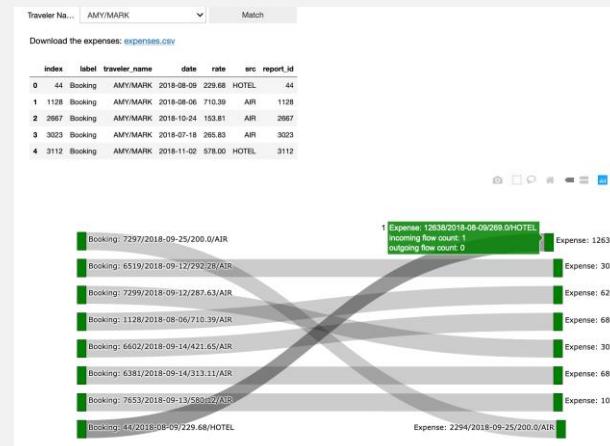
Travel Curation

HOTEL NAME CURATION



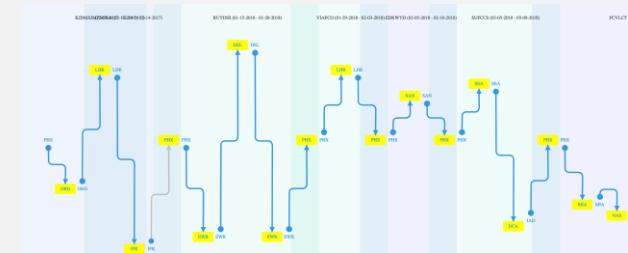
GDS, HMP, SMP hotel
deduplication & standardization

EXPENSE & CARD MATCHING



Compliance, leakage building
total trip views

CURATING INVOICE DATA

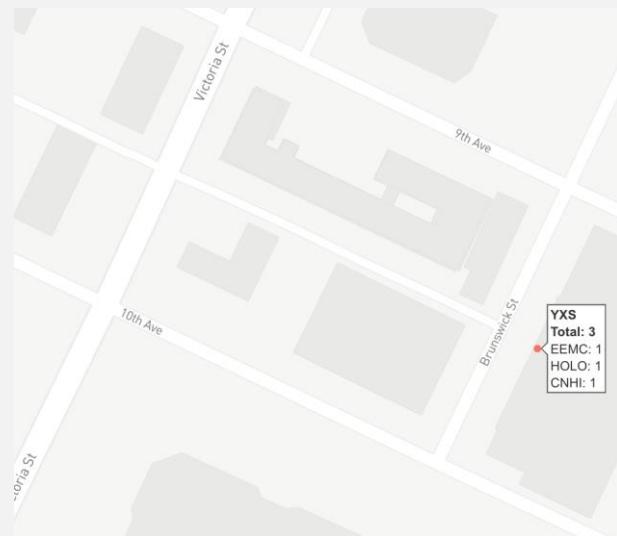


smartcount cesspool cleaned &
anomaly detection; trip scoring

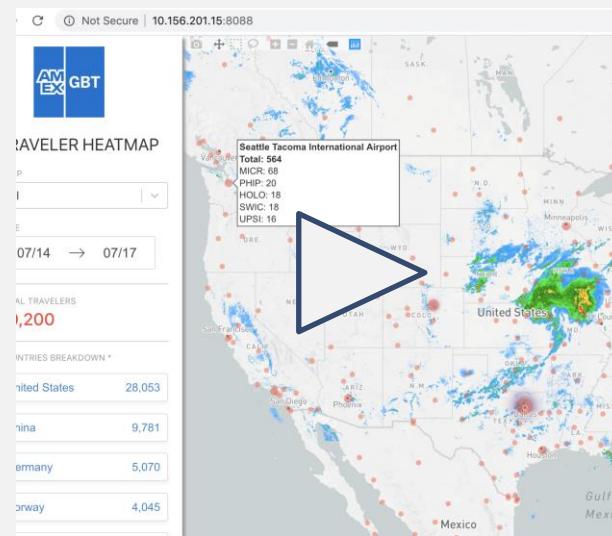
TRIBUTE TO THE TEAM

Visual Planning & Optimizations

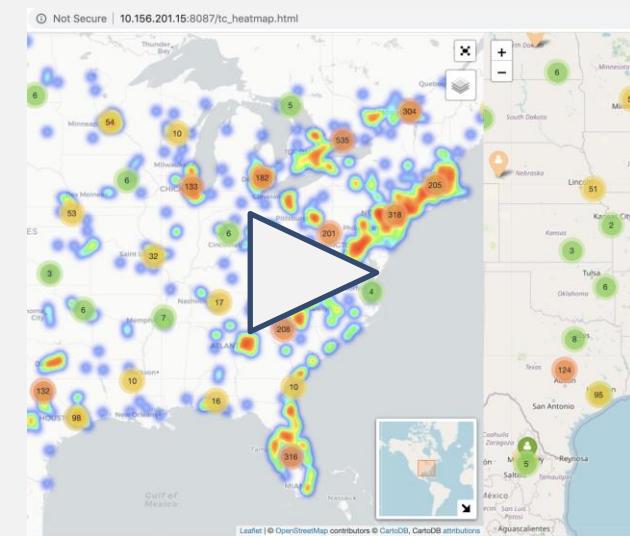
CALM HEATMAP



DUTY OF CARE



COUNSELOR POSITIONING



Visualize Micro Events

Prescience about macro crisis

Posture for success

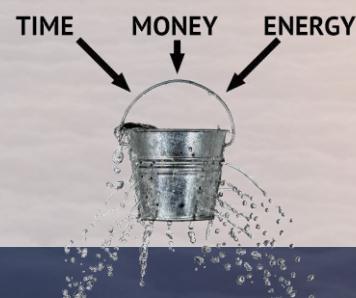
TRIBUTE TO THE TEAM

Mid Market Funnel & Workforce Allocation Optimization OpX + New Opportunity

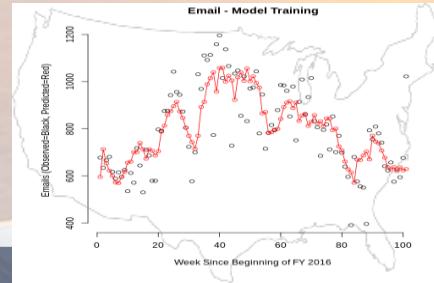
Feed the yearly midmarket funnel



Preemptive Attrition Saves



Scheduling Service Counsellor



Peer Travel Insights



US Inc 5000
D&B Inc
(\$2B Opportunity)

Proactive Customer
Care & Retention

Optimize call, email,
messaging
throughput,
utilization

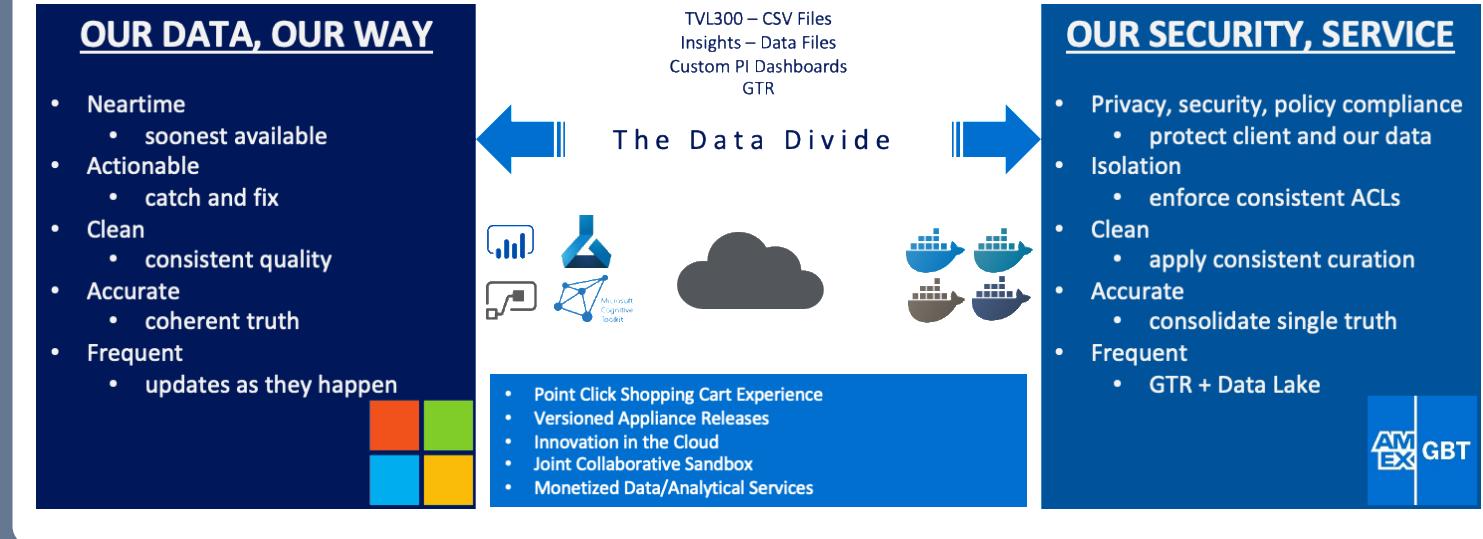
Comparative
Benchmarking &
Preemptive
Program Strategies

TRIBUTE TO THE TEAM

Meeting Client Imperatives

Data Monetization

- Education Courses
 - Stats
 - Programming
 - BI
 - ML
 - Big Data
 - AI
- 12 Patent Submissions



TRIBUTE TO THE TEAM

Optimizing Client M&E Goals

San Francisco Hotel Prices



GLOBAL BUSINESS TRAVEL

Best Time and Location to Meet

Company Name AX GBT	Destination Phoenix, AZ	Event Length 3	Period Quarterly	Begin Date Range 2019 Q4
Traveler Selection Selection Criteria	Destinations <input checked="" type="checkbox"/> Phoenix, AZ <input checked="" type="checkbox"/> New York, NY <input checked="" type="checkbox"/> Atlanta, GA	Days of Week Tues, Wed, Thur	End Date Range 2019 Q4	
Travelers <input checked="" type="checkbox"/> Top 50 <input checked="" type="checkbox"/> Schwab, Charles <input checked="" type="checkbox"/> Winkler, Henry				

Submit

[Recommendation](#) [Cost Comparison](#) [Flight Experience](#)

Most Cost Effective

Destination City Phoenix, AZ, USA
Date Range 2019/10/15 - 2019/10/17
Number of Travelers 52
Proportion of Int'l Travelers 30%
Total Avg. Cost USD 140,589
Hotel Supplier Hilton
Avg. Hotel Cost \$55,677
Air Travel Supplier American (AA) / British (BA)
Avg. Air Cost \$91,912

Second Option

Destination City Atlanta, GA, USA
Date Range 2019/10/22 - 2019/10/24
Number of Travelers 52
Proportion of Int'l Travelers 30%
Total Avg. Cost USD 155,642
Hotel Supplier Mariott
Avg. Hotel Cost \$45,084
Air Travel Supplier Delta (DA)
Avg. Air Cost \$110,558

Third Option

Destination City New York, NY, USA
Date Range 2019/11/05 - 2019/11/07
Number of Travelers 52
Proportion of Int'l Travelers 30%
Total Avg. Cost USD 189,725
Hotel Supplier Renaisance
Avg. Hotel Cost \$85,085
Air Travel Supplier United (UA)
Avg. Air Cost \$95,640

What-if Optimization Calculators

PLEA FOR HELP

- ❑ Our “design-for-deployment”, “rapid innovation & execution” fell short of the finish line
- ❑ Our engineering rigor and tenacity to solutioning can improve: embrace MLOps

Will you help my clipped team?