Valuation Models Are Only as Good as Their Underlying Data
Born in Providence RI, and have extensive experience advising and investing in leading private technology companies.

Prior to founding Cherre, I served as Executive Director of Oppenheimer’s Private Shares Group, after Oppenheimer acquired GreenCrest Capital, a firm I co-founded.

Prior to that I served as Principal at Knight Capital’s Private Equity Group.

Earned my MBA from the University of Pennsylvania Wharton School and am a Joseph Wharton Merit Scholar. Also holds a B.A., LL.B., and LL.M. in finance and International Law from IDC Herzliya.
Better Data • Better Decisions

If we could seamlessly collect and connect all real estate data
Better Data, Better Decisions

We could be empowered to make more impactful investment decisions.
Property asset pricing models fail as a result of poor quality and missing data inputs.
The pricing discrepancies in residential markets are abnormally large, and typically exceed 20%, more than any other asset class.

Inaccurate Valuation
Real estate professionals are notoriously inaccurate at predicting residential sale prices.

Existing public and private pricing platforms rely on limited, inaccurate, and outdated asset information.

Broker Fee
Buyers and sellers have an emotional connection to the asset and/or process.

Limited market pressure to materially reduce agent fees over time in any major urban market.

Transaction Costs
Transaction costs are higher than any other asset class.

Real estate professionals have limited control over such costs.
Segregation of data assets leads to multiple sources of “truth”
Rapid market transitions, and limited collection points exasperate the problem

Contradictory and Outdated information
Data obtained from official government sources is months old at best, and often contradictory.
Inconsistent data points across official and private sources, leads to inaccurate model inputs and assumptions.

Lack of systematic collection and analysis
The vast majority of key property attributes is not collected or analyzed at all.
Condition, finances, maintenance, and countless other key attributes are not systematically collected or analyzed.

Constant flux in large urban markets
30K-50K permits per year, 10%-30% occupant turnover, 2%-6% vacancy rate.
Large cities experience rapid development and turnover, creating a constant state of property and occupant data deficiency.
Residential Condo/Co-op Buildings

A: 728
B: 1,648
C: 5,655
D: 6,046
E: 10,757
F: 15,807
G: 38,014
REBNY*: 29,080
NYC: 31,026
700K+
Residential Rental Buildings

- A: 52
- B: 151
- C: 4,688
- D: 7,128
- E: 8,735
- REBNY: 8,735
- NYC: 28,869
- Total: 56,528
Residential Townhouse Buildings
Crucial data isn’t collected, or is only collected if property is listed

<table>
<thead>
<tr>
<th>Building Data</th>
<th>Unit Data</th>
<th>Listing Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private elevator</td>
<td>Air conditioning type</td>
<td>Assessment</td>
</tr>
<tr>
<td>Garage</td>
<td>Balcony/terrace</td>
<td>Board approval</td>
</tr>
<tr>
<td>New development</td>
<td>Closet space</td>
<td>Broker fee</td>
</tr>
<tr>
<td>Outdoor space</td>
<td>Counter tops</td>
<td>Co-broker agreement</td>
</tr>
<tr>
<td>Package room</td>
<td>Finishes</td>
<td>Commission</td>
</tr>
<tr>
<td>Pool</td>
<td>Fireplace</td>
<td>Condition</td>
</tr>
<tr>
<td>Recent development</td>
<td>Floor paneling</td>
<td>Exclusions</td>
</tr>
<tr>
<td>Service level</td>
<td>Lighting</td>
<td>Flip tax</td>
</tr>
<tr>
<td>Storage unit</td>
<td>Live/work space</td>
<td>Furnished</td>
</tr>
<tr>
<td>Year altered</td>
<td>Loft</td>
<td>Inclusions</td>
</tr>
<tr>
<td></td>
<td>Multiple levels</td>
<td>Kitchen appliances</td>
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<tr>
<td></td>
<td>(duplex/triplex)</td>
<td>Lease restrictions</td>
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<tr>
<td></td>
<td>Sleep loft/alcove</td>
<td>Maintenance</td>
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<tr>
<td></td>
<td>Outdoor space size</td>
<td>Financing restriction</td>
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<td></td>
<td>Square feet</td>
<td>Pet policy</td>
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<tr>
<td></td>
<td>Tax abatement</td>
<td>Showing instructions</td>
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<tr>
<td></td>
<td>Unit line</td>
<td>Taxes</td>
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<tr>
<td></td>
<td>Views/obstructions</td>
<td>Utilities</td>
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<td></td>
<td>Washer/dryer in-unit</td>
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<tr>
<td></td>
<td>Window size</td>
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<tr>
<td></td>
<td>Complimentary data (potentially contradictory)</td>
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<tr>
<td></td>
<td>New or materially augmented data</td>
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</table>

<table>
<thead>
<tr>
<th>Building Sale</th>
<th>Building Rent</th>
<th>Unit Sale</th>
<th>Unit Rent</th>
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</thead>
<tbody>
<tr>
<td>General (timeless)</td>
<td>building</td>
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<td>Category: Building.Timeless</td>
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<tr>
<td>Other: agent, broker, renter, or seller</td>
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<tr>
<td>Category: other</td>
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</table>
Before

Address: 10 West St., Unit #14F
Price: $2,500,000
Bedrooms: 2
Square Feet: 1,000-1,200
Floor Number: Unknown
Days on Market: 1
Condition: "Like new"
Maximum Financing: Unknown
Owner: Michael Stewart
Previous Listings and Sales:
Unidentified Address (Median price p/SQFT for 2BR sales $2,600)

Agent Input

Address: 10 West St., Unit #14F
Price: $2,500,000
Bedrooms: 2
Square Feet: 1,000-1,200
Floor Number: Unknown
Days on Market: 1
Condition: "Like new"
Maximum Financing: Unknown
Owner: Michael Stewart
Previous Listings and Sales:
Unidentified Address (Median price p/SQFT for 2BR sales $2,600)

$2,100 - $2,500 p/SQFT

2 Bedroom
Appears underpriced

$2,275 p/SQFT

1 Bedroom
Overpriced

Analyst/Compliance Input

Address: 10 Little West St., Unit #14F
Price: $2,500,000
Bedrooms: 1 [Room smaller than legal bedroom size]
Square Feet: 1,000-1,200
Floor Number: 14 [Resolved from 10 Little West St.]
Days on Market: 1
Condition: Good (Triple Mint)
Maximum Financing: Unknown
Owner: Michael Stewart
Previous Listings and Sales: [Resolved from 10 Little West St.] 9 Previous 1BR Sales (Median Price P/SQFT $2,200)
Reconciling and analyzing multiple, orphaned data sources is an expensive and time consuming manual endeavor.
We automated the process and connected all the dots

REAL ESTATE DATA

80+ Public Sources

100+ Private Sources

∞ Internal Sources
Multiple data resolution APIs required
Ensuring the most robust and accurate property information, constantly machine learning and self-improving.
Data decisions in a complete data environment

$2,100 - $2,500 \text{ p/SQFT}

- 2 Bedroom
  - Appears underpriced

$2,275 \text{ p/SQFT}

- 1 Bedroom
  - Overpriced

$2,380 \text{ p/SQFT}

- 1 Bedroom
  - Underpriced

Agent Input

Address: 10 West St., Unit #14F
Price: $2,500,000
Bedrooms: 2
Square Feet: 1,000-1,200
Floor Number: Unknown
Days on Market: 1
Condition: "Like new"
Maximum Financing: Unknown
Owner: Michael Stewart
Previous Listings and Sales:
- Unidentified Address (Median price p/SQFT for 2BR sales $2,600)

Analyst/Compliance Input

Address: 10 Little West St., Unit #14F
Price: $2,500,000
Bedrooms: 1 [Room smaller than legal bedroom size]
Square Feet: 1,000-1,200 1,100 [Field rejects ranges]
Floor Number: 14 [Resolved from 10 Little West St.]
Days on Market: 1
Condition: Good (Triple Mint)
Maximum Financing: Unknown
Owner: Michael Stewart
Previous Listings and Sales: [Resolved from 10 Little West St.] 9 Previous 1BR Sales (Median Price P/SQFT $2,200)

Cherre (truth)

Address: 10 West St., Unit #14F [Vanity Address]
Price: $2,500,000
Bedrooms: 1 (King Size) [Multiple user inputs]
Square Feet: 1,050 [Multiple user inputs]
Floor Number: 14
Days on Market: 163 [relisted within 7 days of last listing]
Condition: Renovated 2014; New Kitchen [User input]
Maximum Financing: 75% [Resolved from previous building listings]
Owner: Michael and Lisa Stewart [Multiple user inputs]
Previous Listings and Sales: [Resolved with 25 Battery Pl. and 10 Little West St.] 18 Previous 1BR Sales (Median Price P/SQFT $2,400)
Alt. Address:
- 10 Little West St., Unit #14F [Resolved]
- 25 Battery Pl. [Resolved]
NYC Market Case Study: from launch to actionable data

**BASE MAP**
NYC lacked a reliable or reputable public data vendor that could provide all required data end points to power Cherre’s data platform. We therefore had to build the base map from the bottom up, connecting all city resources to private data repositories.

**COLLECTION**
We launched our collection tools to residential brokers and agents in rapid succession. Our Content Management System is used to prepare client facing marketing materials, and our Comparative Market Analysis tool is used to identify accurate asset pricing.

**CRITICAL MASS**
Relying solely on inbound content and word of mouth marketing, we were able to reach over 400 users within the first 120 days, and continued to grow at a rapid rate thereafter. Users are extremely engaged, and augment data at an ever increasing pace.

**ACTIONABLE DATA**
With data being augmented by top agents across multiple top-tier firms, we are able to provide the market with the most complete and accurate public and listing data. We sell that data back to investors and top-tier brokerage firms for a monthly subscription.
Questions?

“The most interesting information comes from children, for they tell all they know and then stop.” – Mark Twain
Thank You

Cherre

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