

InsightForge AI Analysis Report

Data Preview

Avg. Area Income	Avg. House Age	Avg. Area Number of Rooms	Avg. Area Number of Bedrooms	Area Population	Price	Address
7954	5.68	7.00	4.09	2308	1059	208
5.45	2861	9188		6.80	033.	Mich
857				050	5580	ael
						Ferry
						Apt.
						674\
						nLau
						rabur
						y, NE
						3701
						0-51
						01
	6.00	6.73	3.09			188
	2900	0821				John

Avg. Area Income	Avg. Area House Age	Avg. Area Number of Rooms	Avg. Area Number of Bedrooms	Area Population	Price	Address
79248.64245				40173.07217	1505890.9150	son Views Suite 079\ nLake Kathleen, CA 48958
61287.06718	5.865890	8.512727	5.13	36882.15940	1058987.9880	9127 Elizabeth Stravenue \nDanielto wn, WI 06482-3489
3.26						

Avg. Area Inco me	Avg. Area Hou se Age	Avg. Area Num ber of Roo ms	Avg. Area Num ber of Bedr oom s	Area Pop ulati on	Pric e	Addr ess
6334 5.24 005	7.18 8236	5.58 6729		3431 0.24 283	1260 616. 8070	USS Barn ett\n FPO AP 4482 0
5998 2.19 723	5.04 0555	7.83 9388	4.23	2635 4.10 947	6309 43.4 893	USN S Ray mon d\nF PO AE 0938 6

Exploratory Data Analysis

Statistics

Avg. Area Income	Avg. Area House Age
Avg. Area Number of Rooms	Avg. Area Number of Bedrooms
Area Population	Price
count	5000.000000
5000.000000	

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5000.000000
5000.000000      5000.000000  5.000000e+03
mean      68583.108984
5.977222
6.987792      3.981330
36163.516039  1.232073e+06
std      10657.991214
0.991456
1.005833      1.234137
9925.650114  3.531176e+05
min      17796.631190
2.644304
3.236194      2.000000
172.610686  1.593866e+04
25%      61480.562390
5.322283
6.299250      3.140000
29403.928700  9.975771e+05
50%      68804.286405
5.970429
7.002902      4.050000
36199.406690  1.232669e+06
75%      75783.338665
6.650808
7.665871      4.490000
42861.290770  1.471210e+06
max      107701.748400
9.519088
10.759588      6.500000
69621.713380  2.469066e+06

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Missing Values

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Avg. Area Income: 0
Avg. Area House Age: 0
Avg. Area Number of Rooms: 0
Avg. Area Number of Bedrooms: 0
Area Population: 0

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Price: 0
Address: 0

Correlations

	Avg. Area		
Income	Avg. Area	House Age	Avg. Area Number
of Rooms	Avg. Area	Number of Bedrooms	Area
Population	Price		
Avg. Area Income			
1.000000			
-0.002007			
-0.011032			
0.019788	-0.016234	0.639734	
Avg. Area House Age			
-0.002007			
1.000000			
-0.009428			
0.006149	-0.018743	0.452543	
Avg. Area Number of Rooms			
-0.011032			
-0.009428			
1.000000			
0.462695	0.002040	0.335664	
Avg. Area Number of Bedrooms			
0.019788			
0.006149			
0.462695		1.000000	
-0.022168	0.171071		
Area Population			
-0.016234			
-0.018743			
0.002040			
-0.022168	1.000000	0.408556	
Price			
0.639734			
0.452543			
0.335664			
0.171071	0.408556	1.000000	

AI-Generated Insight

Concise Insight: The exploratory data analysis reveals that the dataset contains 5000 instances with no missing values. The average area income is approximately \$68,583 with a standard deviation of \$10,658, indicating a range from \$17,797 to \$107,702. The average house age is around 6 years with minimal variability (SD = 0.99 years), ranging from about 2.6 to 9.5 years. On average, houses have around 6.98 rooms and 3.98 bedrooms, with populations in areas ranging from about 173 to 69,622. The price of the houses has an average of \$1,232,073 and a standard deviation of \$353,118, suggesting prices range from \$15,939 to \$2,469,066. Correlation analysis indicates that 'Avg. Area Income' has the strongest positive correlation with 'Price' ($r = 0.64$), meaning higher average area income is associated with higher house prices. 'Avg. Area House Age' and 'Area Population' also show moderate positive correlations with 'Price' ($r = 0.45$ and 0.41 , respectively), but not as strong as 'Avg. Area Income'. However, there are no significant correlations between the number of rooms, number of bedrooms, and the price of houses.

Visualizations

Correlation Heatmap

correlation_heatmap

Avg. Area Income Vs Avg. Area House Age Scatter

Avg. Area Income_vs_Avg. Area House Age_scatter

Avg. Area Income Distribution

Avg. Area Income_distribution