## The CONTENTS Procedure

MYLIB.GPU_DATA	Observations	76
DATA	Variables	20
V9	Indexes	0
03/10/2025 22:26:36	Observation Length	184
03/10/2025 22:26:36	Deleted Observations	0
	Compressed	NO
	Sorted	NO
SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
utf-8 Unicode (UTF-8)		
	DATA V9 03/10/2025 22:26:36 03/10/2025 22:26:36  SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64	DATA Variables V9 Indexes 03/10/2025 22:26:36 Observation Length 03/10/2025 22:26:36 Deleted Observations Compressed Sorted SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64

Engine/	Host Dependent Information
Data Set Page Size	131072
Number of Data Set Pages	1
First Data Page	1
Max Obs per Page	711
Obs in First Data Page	76
Number of Data Set Repairs	0
Filename	/home/u62449093/project GPU/gpu_data.sas7bdat
Release Created	9.0401M7
Host Created	Linux
Inode Number	16179326576
Access Permission	rw-rr
Owner Name	u62449093
File Size	256KB
File Size (bytes)	262144

	Alph	abetic L	ist of	Variables and	Attributes	
#	Variable	Туре	Len	Format	Informat	Label
17	Future_Proof_Score	Num	8	BEST.		Future_Proof_Score
16	GPU_Age_Years	Num	8	BEST.		GPU_Age_Years
2	GPU_Model	Char	25	\$25.	\$25.	GPU_Model
18	Gaming_Perf_Price	Num	8	BEST.		Gaming_Perf_Price
20	Overall_Perf_Price	Num	8	BEST.		Overall_Perf_Price
19	Prod_Perf_Price	Num	8	BEST.		Prod_Perf_Price
10	bus	Char	12	\$12.	\$12.	bus
14	gaming_score	Num	8	BEST.		gaming_score
12	gpuChip	Char	13	\$13.	\$13.	gpuChip
6	gpuClock	Num	8	BEST.		gpuClock
1	manufacturer	Char	6	\$6.	\$6.	manufacturer
5	memBusWidth	Num	8	BEST.		memBusWidth
7	memClock	Num	8	BEST.		memClock
4	memSize	Num	8	BEST.		memSize
11	memType	Char	7	\$7.	\$7.	memType
13	price_INR	Num	8	NLMNY15.		price_INR
15	productivity_score	Num	8	BEST.		productivity_score
3	releaseYear	Num	8	BEST.		releaseYear
9	render output unit	Num	8	BEST.		render output unit
8	unifiedShader	Num	8	BEST.		unifiedShader

Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_
1	Intel	Arc A310	2022	4	64	1425	2250	9728	112	PCIe 4.0 x16	GDDR6	AD103	\$11,949	554.496	161.28	
2	Intel	Arc A350	2022	4	64	930	2250	9728	112	PCIe 4.0 x16	GDDR6	AD103	\$13,949	361.8816	161.28	
3	Intel	Arc A350M	2022	4	64	1425	2250	9728	112	PCIe 4.0 x16	GDDR6	AD103	\$10,949	554.496	161.28	
4	Intel	Arc A370M	2022	4	64	1365	1188	10240	112	PCIe 4.0 x16	GDDR6X	GA102	\$12,949	559.104	85.15584	
5	Intel	Arc A380	2022	6	96	1590	1313	16896	24	PCIe 5.0 x16	НВМ3	GH100	\$17,949	1611.8784	30.25152	
6	Intel	Arc A380M	2023	6	96	1110	2250	18176	192	PCIe 4.0 x16	GDDR6	AD102	\$17,949	1210.5216	414.72	
7	Intel	Arc A530M	2023	8	128	1382	945	4096	64	PCIe 3.0 x16	HBM2	Vega 10	\$19,949	452.85376	77.4144	
8	Intel	Arc A550M	2022	8	128	1800	2000	3840	96	PCIe 4.0 x16	GDDR6	Navi 21	\$19,949	552.96	245.76	
9	Intel	Arc A570M	2023	8	128	1382	945	4096	64	PCIe 3.0 x16	HBM2	Vega 10	\$16,949	452.85376	77.4144	
10	Intel	Arc A580	2023	8	256	1365	1188	6144	96	PCIe 4.0 x16	GDDR6X	GA104	\$15,949	670.9248	291.96288	

#### The MEANS Procedure

releaseYear	N Obs	Variable	Label	N	Mean	Median	Std Dev	Minimum	Maximun
2018	3	gaming_score productivity_score price_INR memSize gpuClock memClock	gaming_score productivity_score price_INR memSize gpuClock memClock	3 3 3 3 3	136.3626667 103.7653333 33833.33 9.0000000 850.0000000 1266.67	108.8000000 94.2080000 37000.00 8.0000000 850.0000000 1150.00	47.7399391 16.5537869 9647.97 1.7320508 0 202.0725942	108.8000000 94.2080000 23000.00 8.0000000 850.0000000 1150.00	191.488000 122.880000 41500.0 11.000000 850.000000 1500.0
2019	7	gaming_score productivity_score price_INR memSize gpuClock memClock	gaming_score productivity_score price_INR memSize gpuClock memClock	7 7 7 7 7	91.0306743 86.3085714 35092.86 7.4285714 814.5714286 1214.29	114.6880000 102.4000000 32000.00 8.0000000 800.0000000 1250.00	45.4640323 27.4813461 10326.84 0.9759001 19.8650207 60.9937546	24.5760000 46.0800000 25000.00 6.0000000 800.0000000 1125.00	121.856000 102.400000 55650.0 8.000000 850.000000 1250.0
2020	8	gaming_score productivity_score price_INR memSize gpuClock memClock	gaming_score productivity_score price_INR memSize gpuClock memClock	8 8 8 8 8	320.7961600 130.5267200 77385.88 14.2500000 1269.63 1401.00	295.6902400 143.3600000 85349.00 16.0000000 1349.00 1353.00	162.6715199 54.9052774 28826.33 5.3917927 564.7967871 257.2691753	24.5760000 27.7094400 36500.00 8.0000000 300.0000000 1001.00	506.265600 204.963840 104500.0 24.00000 2068.0 1750.0
2021	11	gaming_score productivity_score price_INR memSize gpuClock memClock	gaming_score productivity_score price_INR memSize gpuClock memClock	11 11 11 11 11	115.5588655 66.0666182 46029.45 9.0909091 982.9090909 1350.36	60.2112000 61.4400000 42599.00 8.0000000 960.0000000 1500.00	140.0494865 45.3243698 13029.25 2.4271195 309.2770456 429.3260469	19.2000000 10.2400000 35599.00 6.0000000 500.0000000 500.0000000	493.670400 143.360000 79349.0 12.000000 1607.0 1750.0
2022	22	gaming_score productivity_score price_INR memSize gpuClock memClock	gaming_score productivity_score price_INR memSize gpuClock memClock	22 22 22 22 22 22 22	1067.50 345.1095273 51057.91 12.4545455 1344.05 1645.95	841.5744000 284.1907200 40099.00 12.0000000 1330.00 1750.00	724.7795428 265.4898143 40535.72 6.8711077 371.5843143 582.5164193	327.6800000 0 10949.00 4.0000000 810.0000000 500.0000000	3406.2 815.616000 158000.0 24.000000 2075.0 2438.0
2023	16	gaming_score productivity_score price_INR memSize gpuClock memClock	gaming_score productivity_score price_INR memSize gpuClock memClock	16 16 16 16 16	724.5843200 193.9635200 41595.63 10.2500000 1185.81 1304.88	717.9264000 215.2857600 40172.50 8.0000000 1252.50 1188.00	358.8172762 122.3959772 22714.86 3.4928498 250.0240572 498.8871449	162.2016000 0 15949.00 6.0000000 495.0000000 876.0000000	1548.2 430.080000 96249.0 16.000000 1575.0 2525.0
2024	4	gaming_score productivity_score price_INR memSize gpuClock memClock	gaming_score productivity_score price_INR memSize gpuClock memClock	4 4 4 4 4	1075.87 273.5360000 68934.25 15.0000000 1257.50 1641.25	1137.97 298.2400000 70569.00 16.0000000 1102.50 1675.00	286.4962601 206.5666205 32531.57 2.0000000 381.4555457 328.5923259	681.9840000 0 29599.00 12.0000000 1000.00 1215.00	1345.8 497.664000 105000.0 16.000000 1825.0 2000.0
2025	5	gaming_score productivity_score price_INR memSize gpuClock memClock	gaming_score productivity_score price_INR memSize gpuClock memClock	5 5 5 5 5 5	1135.53 496.6809600 154699.60 14.4000000 1537.00 1833.00	995.3280000 552.9600000 158000.00 12.0000000 1825.00 2000.00	546.3251917 204.7278158 62885.62 8.2945765 605.1094942 597.7624946	672.7680000 153.6000000 96249.00 8.0000000 900.0000000 1200.00	2064.3 688.128000 250000.0 28.000000 2235.0 2500.0

## **Summary Statistics of GPU Dataset**

Obs	releaseYear	_TYPE_	_FREQ_	gaming_score_Mean	productivity_score_Mean	price_INR_Mean	memSize_Mean	gpuClock_Mean	memClock_Mean	gaming_score_Median	productivity_score_Media
1		0	76	657.14829474	223.15496421	\$56,718	11.355263158	1190.5	1462.9078947	499.968	143.3
2	2018	1	3	136.36266667	103.76533333	\$33,833	9	850	1266.6666667	108.8	94.20
3	2019	1	7	91.030674286	86.308571429	\$35,093	7.4285714286	814.57142857	1214.2857143	114.688	102
4	2020	1	8	320.79616	130.52672	\$77,386	14.25	1269.625	1401	295.69024	143.3
5	2021	1	11	115.55886545	66.066618182	\$46,029	9.0909090909	982.90909091	1350.3636364	60.2112	61.4
6	2022	1	22	1067.4985891	345.10952727	\$51,058	12.454545455	1344.0454545	1645.9545455	841.5744	284.1907
7	2023	1	16	724.58432	193.96352	\$41,596	10.25	1185.8125	1304.875	717.9264	215.2857
8	2024	1	4	1075.8656	273.536	\$68,934	15	1257.5	1641.25	1137.9712	298.2
9	2025	1	5	1135.53408	496.68096	\$154,700	14.4	1537	1833	995.328	552.9

## **Correlation Analysis of GPU Features**

#### The CORR Procedure

7 Variables: gaming\_score productivity\_score price\_INR memSize gpuClock memClock unifiedShader

	Simple Statistics													
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label							
gaming_score	76	657.14829	606.76864	49943	19.20000	3406	gaming_score							
productivity_score	76	223.15496	209.32556	16960	0	815.61600	productivity_score							
price_INR	76	56718	41962	4310600	10949	250000	price_INR							
memSize	76	11.35526	5.32842	863.00000	4.00000	28.00000	memSize							
gpuClock	76	1191	398.81088	90478	300.00000	2235	gpuClock							
memClock	76	1463	485.65923	111181	500.00000	2525	memClock							
unifiedShader	76	4631	3750	351936	480.00000	19456	unifiedShader							

	Pearson Correlation Coefficients, N = 76 Prob >  r  under H0: Rho=0												
	gaming_score	productivity_score	price_INR	memSize	gpuClock	memClock	unifiedShader						
gaming_score	1.00000	0.67157	0.45032	0.64497	0.43845	0.22929	0.59537						
gaming_score		<.0001	<.0001	<.0001	<.0001	0.0463	<.0001						
productivity_score productivity_score	0.67157 <.0001	1.00000	0.45535 <.0001	0.58197 <.0001	0.29833 0.0089	0.36655 0.0011	0.30012 0.0084						
price_INR	0.45032	0.45535	1.00000	0.68455	0.08877	0.04610	0.02340						
price_INR	<.0001	<.0001		<.0001	0.4457	0.6925	0.8410						
memSize	0.64497	0.58197	0.68455	1.00000	-0.00074	-0.04968	0.02893						
memSize	<.0001	<.0001	<.0001		0.9950	0.6700	0.8041						
gpuClock	0.43845	0.29833	0.08877	-0.00074	1.00000	0.41132	0.20033						
gpuClock	<.0001	0.0089	0.4457	0.9950		0.0002	0.0827						
memClock	0.22929	0.36655	0.04610	-0.04968	0.41132	1.00000	0.35918						
memClock	0.0463	0.0011	0.6925	0.6700	0.0002		0.0014						

## Results: Program 2 final.sas

Pearson Correlation Coefficients, N = 76 Prob >  r  under H0: Rho=0												
	gaming_score	productivity_score	price_INR	memSize	gpuClock	memClock	unifiedShader					
unifiedShader unifiedShader	0.59537 <.0001	0.30012 0.0084	0.02340 0.8410	0.02893 0.8041	0.20033 0.0827	0.35918 0.0014	1.00000					

## Ranked GPUs Based on Performance & Price

Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_
1	Intel	Arc A310	2022	4	64	1425	2250	9728	112	PCIe 4.0 x16	GDDR6	AD103	\$11,949	554.496	161.28	
2	Intel	Arc A350	2022	4	64	930	2250	9728	112	PCIe 4.0 x16	GDDR6	AD103	\$13,949	361.8816	161.28	
3	Intel	Arc A350M	2022	4	64	1425	2250	9728	112	PCIe 4.0 x16	GDDR6	AD103	\$10,949	554.496	161.28	
4	Intel	Arc A370M	2022	4	64	1365	1188	10240	112	PCIe 4.0 x16	GDDR6X	GA102	\$12,949	559.104	85.15584	
5	Intel	Arc A380	2022	6	96	1590	1313	16896	24	PCIe 5.0 x16	НВМ3	GH100	\$17,949	1611.8784	30.25152	
6	Intel	Arc A380M	2023	6	96	1110	2250	18176	192	PCIe 4.0 x16	GDDR6	AD102	\$17,949	1210.5216	414.72	
7	Intel	Arc A530M	2023	8	128	1382	945	4096	64	PCIe 3.0 x16	HBM2	Vega 10	\$19,949	452.85376	77.4144	
8	Intel	Arc A550M	2022	8	128	1800	2000	3840	96	PCIe 4.0 x16	GDDR6	Navi 21	\$19,949	552.96	245.76	
9	Intel	Arc A570M	2023	8	128	1382	945	4096	64	PCle 3.0 x16	HBM2	Vega 10	\$16,949	452.85376	77.4144	
10	Intel	Arc A580	2023	8	256	1365	1188	6144	96	PCIe 4.0 x16	GDDR6X	GA104	\$15,949	670.9248	291.96288	

# Top 10 GPUs for Gaming Performance

Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_
1	NVIDIA	GeForce RTX 3090 Ti	2022	24	384	1980	1313	7168	80	PCIe 4.0 x16	GDDR6X	AD104	\$100,349	3406.2336	403.3536	
2	NVIDIA	GeForce RTX 5090	2025	28	448	900	1200	8192	128	PCIe 4.0 x16	HBM2e	Arctic Sound	\$250,000	2064.384	688.128	
3	NVIDIA	GeForce RTX 3080 Ti 20 GB	2022	20	320	1275	1593	6912	160	PCIe 4.0 x16	HBM2e	GA100	\$82,349	1762.56	815.616	
4	Intel	Arc A770	2022	16	256	2075	2250	5120	128	PCle 4.0 x16	GDDR6	Navi 21	\$62,949	1699.84	737.28	
5	NVIDIA	GeForce RTX 4090	2022	24	384	975	1563	7168	80	PCIe 4.0 x16	GDDR6	GA102	\$158,000	1677.312	480.1536	
6	Intel	Arc A380	2022	6	96	1590	1313	16896	24	PCle 5.0 x16	НВМ3	GH100	\$17,949	1611.8784	30.25152	
7	NVIDIA	GeForce RTX 4090 Mobile	2023	16	256	1575	1188	6144	96	PCIe 4.0 x16	GDDR6X	GA102	\$83,249	1548.288	291.96288	
8	AMD	Radeon RX 7900 XT	2022	20	320	1065	1593	6912	160	PCIe 4.0 x16	HBM2e	GA100	\$53,349	1472.256	815.616	
9	AMD	Radeon RX 7900 XTX	2022	24	384	810	2000	7424	96	PCIe 4.0 x16	GDDR6	GA103	\$121,245	1443.2256	737.28	
10	Intel	Arc A770M	2022	16	256	1725	2250	5120	64	PCIe 4.0 x16	GDDR6	AD104	\$54,650	1413.12	368.64	

# Top 10 GPUs for Productivity Performance

Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_/
1	NVIDIA	GeForce RTX 3080 Ti 20 GB	2022	20	320	1275	1593	6912	160	PCIe 4.0 x16	HBM2e	GA100	\$82,349	1762.56	815.616	
2	AMD	Radeon RX 7900 XT	2022	20	320	1065	1593	6912	160	PCIe 4.0 x16	HBM2e	GA100	\$53,349	1472.256	815.616	
3	Intel	Arc A770	2022	16	256	2075	2250	5120	128	PCIe 4.0 x16	GDDR6	Navi 21	\$62,949	1699.84	737.28	
4	AMD	Radeon RX 7900 XTX	2022	24	384	810	2000	7424	96	PCIe 4.0 x16	GDDR6	GA103	\$121,245	1443.2256	737.28	
5	NVIDIA	GeForce RTX 5090	2025	28	448	900	1200	8192	128	PCIe 4.0 x16	HBM2e	Arctic Sound	\$250,000	2064.384	688.128	
6	Intel	Arc A750	2022	8	256	1825	2000	5120	128	PCIe 4.0	GDDR6	Navi 21	\$20,949	747.52	655.36	

Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_A
										x16						
7	NVIDIA	GeForce RTX 5080	2025	16	256	900	1215	6912	192	PCIe 4.0 x16	HBM2e	GA100	\$99,249	995.328	597.1968	
8	NVIDIA	GeForce RTX 5060	2025	8	128	1825	2250	4608	192	PCIe 4.0 x16	GDDR6	Navi 31	\$170,000	672.768	552.96	
9	NVIDIA	GeForce RTX 4080 SUPER	2024	16	256	1095	1215	6912	160	PCIe 4.0 x16	HBM2e	GA100	\$105,000	1210.9824	497.664	
10	NVIDIA	GeForce RTX 5070	2025	12	192	1825	2000	5120	128	PCIe 4.0 x16	GDDR6	Navi 21	\$96,249	1121.28	491.52	

## Top 10 Budget GPUs for Gaming

Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_
1	Intel	Arc A380	2022	6	96	1590	1313	16896	24	PCle 5.0 x16	НВМ3	GH100	\$17,949	1611.8784	30.25152	
2	Intel	Arc A380M	2023	6	96	1110	2250	18176	192	PCle 4.0 x16	GDDR6	AD102	\$17,949	1210.5216	414.72	
3	Intel	Arc A750	2022	8	256	1825	2000	5120	128	PCle 4.0 x16	GDDR6	Navi 21	\$20,949	747.52	655.36	
4	Intel	Arc A350M	2022	4	64	1425	2250	9728	112	PCle 4.0 x16	GDDR6	AD103	\$10,949	554.496	161.28	
5	Intel	Arc A730M	2022	12	192	1410	1750	4864	80	PCle 4.0 x16	GDDR6	GA103	\$17,949	822.9888	268.8	
6	Intel	Arc A580	2023	8	256	1365	1188	6144	96	PCle 4.0 x16	GDDR6X	GA104	\$15,949	670.9248	291.96288	
7	Intel	Arc A310	2022	4	64	1425	2250	9728	112	PCle 4.0 x16	GDDR6	AD103	\$11,949	554.496	161.28	
8	AMD	Radeon RX 7600 XT	2024	16	128	1825	2000	4608	128	PCle 4.0 x16	GDDR6	Navi 21	\$29,599	1345.536	327.68	
9	Intel	Arc A370M	2022	4	64	1365	1188	10240	112	PCle 4.0 x16	GDDR6X	GA102	\$12,949	559.104	85.15584	
10	AMD	Radeon RX 7900 XT	2022	20	320	1065	1593	6912	160	PCIe 4.0 x16	HBM2e	GA100	\$53,349	1472.256	815.616	

# Top 10 Budget GPUs for Productivity

Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_
1	Intel	Arc A380	2022	6	96	1590	1313	16896	24	PCle 5.0 x16	НВМ3	GH100	\$17,949	1611.8784	30.25152	
2	Intel	Arc A380M	2023	6	96	1110	2250	18176	192	PCle 4.0 x16	GDDR6	AD102	\$17,949	1210.5216	414.72	
3	Intel	Arc A750	2022	8	256	1825	2000	5120	128	PCle 4.0 x16	GDDR6	Navi 21	\$20,949	747.52	655.36	
4	Intel	Arc A350M	2022	4	64	1425	2250	9728	112	PCle 4.0 x16	GDDR6	AD103	\$10,949	554.496	161.28	
5	Intel	Arc A730M	2022	12	192	1410	1750	4864	80	PCle 4.0 x16	GDDR6	GA103	\$17,949	822.9888	268.8	
6	Intel	Arc A580	2023	8	256	1365	1188	6144	96	PCle 4.0 x16	GDDR6X	GA104	\$15,949	670.9248	291.96288	
7	Intel	Arc A310	2022	4	64	1425	2250	9728	112	PCle 4.0 x16	GDDR6	AD103	\$11,949	554.496	161.28	
8	AMD	Radeon RX 7600 XT	2024	16	128	1825	2000	4608	128	PCIe 4.0 x16	GDDR6	Navi 21	\$29,599	1345.536	327.68	
9	Intel	Arc A370M	2022	4	64	1365	1188	10240	112	PCIe 4.0 x16	GDDR6X	GA102	\$12,949	559.104	85.15584	
10	AMD	Radeon RX 7900 XT	2022	20	320	1065	1593	6912	160	PCIe 4.0 x16	HBM2e	GA100	\$53,349	1472.256	815.616	

# Top 10 GPUs with Best Price-to-Performance Ratio

Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_A
1	Intel	Arc A380	2022	6	96	1590	1313	16896	24	PCIe 5.0 x16	НВМ3	GH100	\$17,949	1611.8784	30.25152	
2	Intel	Arc A380M	2023	6	96	1110	2250	18176	192	PCIe 4.0 x16	GDDR6	AD102	\$17,949	1210.5216	414.72	

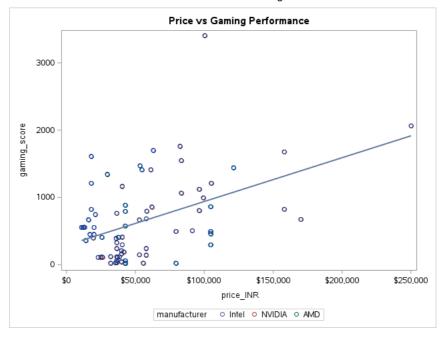
Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_
3	Intel	Arc A750	2022	8	256	1825	2000	5120	128	PCIe 4.0 x16	GDDR6	Navi 21	\$20,949	747.52	655.36	
4	Intel	Arc A350M	2022	4	64	1425	2250	9728	112	PCle 4.0 x16	GDDR6	AD103	\$10,949	554.496	161.28	
5	Intel	Arc A730M	2022	12	192	1410	1750	4864	80	PCIe 4.0 x16	GDDR6	GA103	\$17,949	822.9888	268.8	
6	Intel	Arc A580	2023	8	256	1365	1188	6144	96	PCle 4.0 x16	GDDR6X	GA104	\$15,949	670.9248	291.96288	
7	Intel	Arc A310	2022	4	64	1425	2250	9728	112	PCIe 4.0 x16	GDDR6	AD103	\$11,949	554.496	161.28	
8	AMD	Radeon RX 7600 XT	2024	16	128	1825	2000	4608	128	PCIe 4.0 x16	GDDR6	Navi 21	\$29,599	1345.536	327.68	
9	Intel	Arc A370M	2022	4	64	1365	1188	10240	112	PCIe 4.0 x16	GDDR6X	GA102	\$12,949	559.104	85.15584	
10	AMD	Radeon RX 7900 XT	2022	20	320	1065	1593	6912	160	PCIe 4.0 x16	HBM2e	GA100	\$53,349	1472.256	815.616	

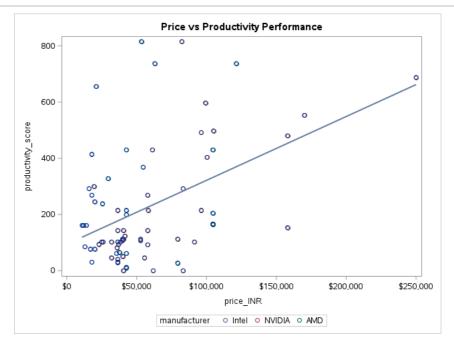
# Top 10 Future-Proof GPUs

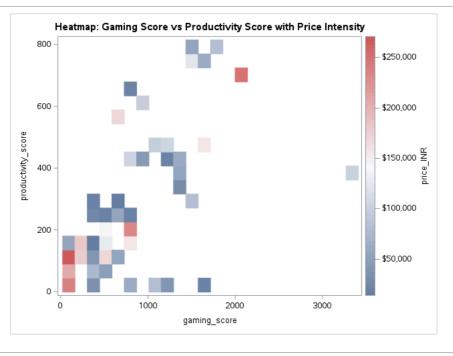
Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_
1	NVIDIA	GeForce RTX 3090 Ti	2022	24	384	1980	1313	7168	80	PCIe 4.0 x16	GDDR6X	AD104	\$100,349	3406.2336	403.3536	
2	NVIDIA	GeForce RTX 4090 Mobile	2023	16	256	1575	1188	6144	96	PCle 4.0 x16	GDDR6X	GA102	\$83,249	1548.288	291.96288	
3	NVIDIA	GeForce RTX 3080 Ti 20 GB	2022	20	320	1275	1593	6912	160	PCle 4.0 x16	HBM2e	GA100	\$82,349	1762.56	815.616	
4	Intel	Arc A380M	2023	6	96	1110	2250	18176	192	PCle 4.0 x16	GDDR6	AD102	\$17,949	1210.5216	414.72	
5	Intel	Arc A770	2022	16	256	2075	2250	5120	128	PCle 4.0 x16	GDDR6	Navi 21	\$62,949	1699.84	737.28	
6	AMD	Radeon RX 7900 XT	2022	20	320	1065	1593	6912	160	PCle 4.0 x16	HBM2e	GA100	\$53,349	1472.256	815.616	
7	AMD	Radeon RX 7900 XTX	2022	24	384	810	2000	7424	96	PCIe 4.0 x16	GDDR6	GA103	\$121,245	1443.2256	737.28	
8	NVIDIA	GeForce RTX 4090	2022	24	384	975	1563	7168	80	PCIe 4.0 x16	GDDR6	GA102	\$158,000	1677.312	480.1536	
9	AMD	Radeon RX 7800 XT	2023	16	256	900	1750	6144	96	PCIe 4.0 x16	GDDR6	GA104	\$42,599	884.736	430.08	
10	NVIDIA	GeForce RTX 4080	2022	16	256	1500	1750	5888	96	PCIe 4.0 x16	GDDR6	GA104	\$61,249	1413.12	430.08	

## Performance Trends by Release Year

Obs	releaseYear	_TYPE_	_FREQ_	gaming_score	productivity_score
1		0	76	657.14829474	223.15496421
2	2018	1	3	136.36266667	103.76533333
3	2019	1	7	91.030674286	86.308571429
4	2020	1	8	320.79616	130.52672
5	2021	1	11	115.55886545	66.066618182
6	2022	1	22	1067.4985891	345.10952727
7	2023	1	16	724.58432	193.96352
8	2024	1	4	1075.8656	273.536
9	2025	1	5	1135.53408	496.68096





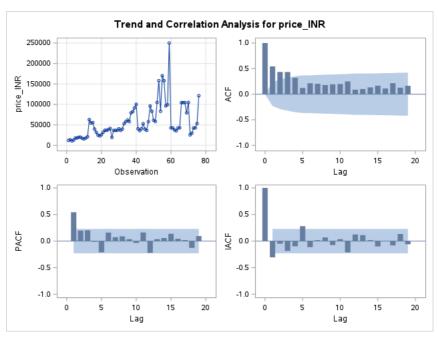


## Heatmap: Gaming Score vs Productivity Score with Price Intensity

## The ARIMA Procedure

Name of Variable = pri	ce_INR
Mean of Working Series	56718.42
Standard Deviation	41684.99
Number of Observations	76

		Au	tocorrelation	Check fo	or White	Noise			
To Lag	Chi-Square	DF	Pr > ChiSq			Autocor	relations	5	
6	67.01	6	<.0001	0.542	0.434	0.433	0.320	0.121	0.213
12	86.47	12	<.0001	0.203	0.179	0.192	0.198	0.249	0.088
18	99.26	18	<.0001	0.100	0.133	0.166	0.110	0.215	0.127



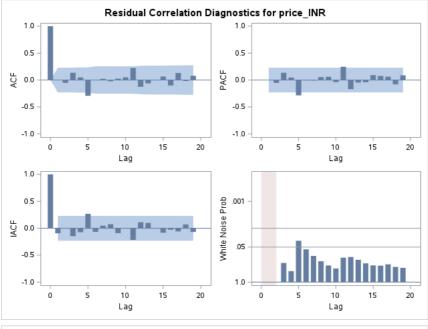
(	Conditional	Least Squar	es Estima	ition	
Parameter	Estimate	Standard Error	t Value	Approx Pr >  t	Lag
MU	52527.6	12668.1	4.15	<.0001	0
MA1,1	0.42568	0.17174	2.48	0.0155	1
AR1,1	0.83682	0.10359	8.08	<.0001	1

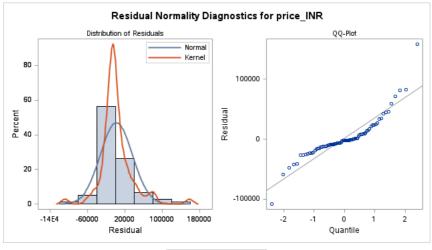
Constant Estimate	8571.682
Variance Estimate	1.1897E9
Std Error Estimate	34492.44
AIC	1806.789
SBC	1813.781
Number of Residuals	76

## \* AIC and SBC do not include log determinant.

Correlation	s of Para	meter Es	timates
Parameter	MU	MA1,1	AR1,1
MU	1.000	-0.062	-0.092
MA1,1	-0.062	1.000	0.771
AR1,1	-0.092	0.771	1.000

	Autocorrelation Check of Residuals												
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations									
6	8.84	4	0.0651	0.001	-0.050	0.137	0.052	-0.287	0.008				
12	15.37	10	0.1193	0.027	-0.017	0.030	0.055	0.227	-0.122				
18	18.95	16	0.2713	-0.058	0.007	0.068	-0.095	0.138	-0.013				
24	21.06	22	0.5167	0.084	0.086	0.073	0.005	-0.000	-0.002				



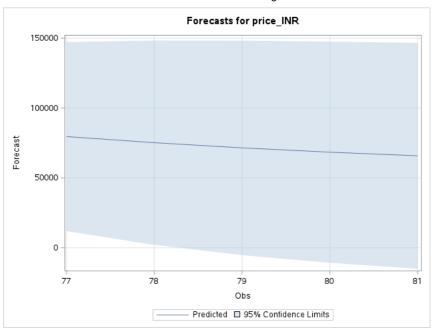


Model for variable price\_INR
Estimated Mean 52527.63

Autoregressive Factors
Factor 1: 1 - 0.83682 B\*\*(1)

Moving Average Factors
Factor 1: 1 - 0.42568 B\*\*(1)

	Forecasts for variable price_INR											
Obs	Forecast	Std Error	95% Confid	dence Limits								
77	79596.0014	34492.439	11992.0632	147199.9396								
78	75178.8697	37293.810	2084.3444	148273.3950								
79	71482.5442	39136.309	-5223.2116	148188.3000								
80	68389.4009	40376.516	-10747.1159	147525.9177								
81	65801.0098	41222.777	-14994.1494	146596.1689								



## **Predicted GPU Prices for Next 5 Years**

Obs	price_INR	FORECAST	STD	L95	U95	RESIDUAL
1	\$11,949	52527.63	34492.44	-15076.31	120131.57	-40578.63
2	\$13,949	35844.43	34492.44	-31759.51	103448.36	-21895.43
3	\$10,949	29564.94	34492.44	-38039.00	97168.87	-18615.94
4	\$12,949	25658.46	34492.44	-41945.47	93262.40	-12709.4
5	\$17,949	24817.81	34492.44	-42786.13	92421.75	-6868.8
6	\$17,949	26515.62	34492.44	-41088.31	94119.56	-8566.6
7	\$19,949	27238.35	34492.44	-40365.58	94842.29	-7289.3
8	\$19,949	28368.27	34492.44	-39235.67	95972.21	-8419.2
9	\$16,949	28849.26	34492.44	-38754 68	96453.20	-11900.2
10	*******	27820.61	34492.44	-39783.33	95424.55	-11871.6
10	\$15,949	26971.60	34492.44			
	\$17,949			-40632.34	94575.54	-9022.6
12	\$20,949	27432.45	34492.44	-40171.48	95036.39	-6483.4
13	\$62,949	28862.03	34492.44	-38741.91	96465.97	34086.9
14	\$54,650	46738.15	34492.44	-20865.78	114342.09	7911.8
15	\$55,650	50935.72	34492.44	-16668.21	118539.66	4714.2
16	\$40,000	53133.69	34492.44	-14470.25	120737.63	-13133.6
17	\$32,000	47635.10	34492.44	-19968.84	115239.04	-15635.1
18	\$25,000	42005.38	34492.44	-25598.56	109609.32	-17005.3
19	\$23,000	36730.98	34492.44	-30872.96	104334.92	-13730.9
20	\$26,000	33663.49	34492.44	-33940.45	101267.43	-7663.4
21	\$32,000	33591.11	34492.44	-34012.83	101195.05	-1591.1
22	\$37,000	36027.09	34492.44	-31576.84	103631.03	972.9
23	\$36,500	39119.71	34492.44	-28484.22	106723.65	-2619.7
24	\$38,500	40230.62	34492.44	-27373.31	107834.56	-1730.6
25	\$41,500	41525.79	34492.44	-26078.15	109129.72	-25.7
26	\$19,455	43310.51	34492.44	-24293.43	110914.45	-23855.5
27	\$36,500	35006.82	34492.44	-32597.12	102610.76	1493.1
28	\$36,500	38479.83	34492.44	-29124.10	106083.77	-1979.8
29	\$36,500	39958.24	34492.44	-27645.70	107562.18	-3458.2
30	\$40,500	40587.57	34492 44	-27016.37	108191.51	-87.5
31	\$36,500	42500.00	34492.44	-25103.94	110103.94	-6000.0
32	\$39.845	41669.55	34492 44	-25934.38	109273.49	-1824.5
33	\$52,845	42691.29	34492.44	-24912.65	110295.22	10153.7
34	\$57,889	48470.95	34492.44	-19132.99	116074.89	9418.0
35	\$61,889	53005.00	34492.44	-14598.93	120608.94	8884.0
			01102:11			
36	\$57,889	56579.61	34492.44	-11024.33	124183.54	1309.3
37	\$79,349	56456.72	34492.44	-11147.22	124060.66	22892.2
38	\$82,349	65227.32	34492.44	-2376.62	132831.26	17121.6
39	\$91,349	70194.21	34492.44	2590.28	137798.15	21154.7
40	\$100,349	76008.73	34492.44	8404.79	143612.67	24340.2
41	\$40,500	82184.07	34492.44	14580.13	149788.01	-41684.0
42	\$36,000	60206.92	34492.44	-7397.02	127810.86	-24206.9
43	\$40,500	49001.52	34492.44	-18602.42	116605.46	-8501.5
44	\$52,845	46081.67	34492.44	-21522.26	113685.61	6763.3
45	\$39,845	49914.18	34492.44	-17689.76	117518.12	-10069.1
46	\$36,500	46200.88	34492.44	-21403.06	113804.82	-9700.8
47	\$57,889	43244.96	34492.44	-24358.98	110848.90	14644.0
48	\$96,249	50780.39	34492.44	-16823.55	118384.33	45468.6
49	\$83,249	69759.15	34492.44	2155.21	137363.08	13489.8
50	\$61,249	72493.35	34492.44	4889.42	140097.29	-11244.3
51	\$58,249	64612.34	34492.44	-2991.60	132216.28	-6363.3

## Results: Program 2 final.sas

Obs	price_INR	FORECAST	STD	L95	U95	RESIDUAL
52	\$105,000	60024.13	34492.44	-7579.81	127628.07	44975.87
53	\$158,000	77291.87	34492.44	9687.93	144895.81	80708.13
54	\$83,249	106432.49	34492.44	38828.55	174036.43	-23183.49
55	\$170,000	88104.58	34492.44	20500.64	155708.51	81895.42
56	\$158,000	115968.87	34492.44	48364.93	183572.81	42031.13
57	\$96,249	122896.63	34492.44	55292.69	190500.57	-26647.63
58	\$99,249	100457.81	34492.44	32853.87	168061.74	-1208.81
59	\$250,000	92139.38	34492.44	24535.44	159743.31	157860.62
60	\$42,599	150577.04	34492.44	82973.10	218180.97	-107978.04
61	\$42,599	90183.61	34492.44	22579.67	157787.55	-47584.61
62	\$37,599	64475.16	34492.44	-3128.78	132079.09	-26876.16
63	\$35,599	51475.84	34492.44	-16128.10	119079.78	-15876.84
64	\$42,599	45119.99	34492.44	-22483.95	112723.92	-2520.99
65	\$42,599	45292.34	34492.44	-22311.60	112896.28	-2693.34
66	\$104,500	45365.70	34492.44	-22238.23	112969.64	59134.30
67	\$104,500	70846.46	34492.44	3242.52	138450.40	33653.54
68	\$104,500	81693.19	34492.44	14089.25	149297.13	22806.81
69	\$79,349	86310.46	34492.44	18706.52	153914.39	-6961.46
70	\$104,500	77935.55	34492.44	10331.61	145539.49	26564.45
71	\$25,599	84710.89	34492.44	17106.95	152314.83	-59111.89
72	\$29,599	55156.26	34492.44	-12447.68	122760.19	-25557.26
73	\$42,599	44219.88	34492.44	-23384.06	111823.82	-1620.88
74	\$42,599	44909.18	34492.44	-22694.76	112513.12	-2310.18
75	\$53,349	45202.60	34492.44	-22401.34	112806.54	8146.40
76	\$121,245	49747.18	34492.44	-17856.76	117351.12	71497.82
77		79596.00	34492.44	11992.06	147199.94	
78		75178.87	37293.81	2084.34	148273.39	
79		71482.54	39136.31	-5223.21	148188.30	
80		68389.40	40376.52	-10747.12	147525.92	
81		65801.01	41222.78	-14994.15	146596.17	

## Regression Model: Predicting Gaming Performance

The REG Procedure Model: MODEL1 Dependent Variable: gaming\_score gaming\_score

Number of Observations Read 76
Number of Observations Used 76

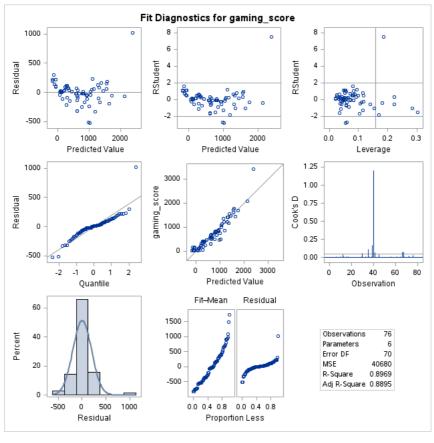
Analysis of Variance									
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F				
Model	5	24764979	4952996	121.75	<.0001				
Error	70	2847635	40680						
Corrected Total	75	27612613							

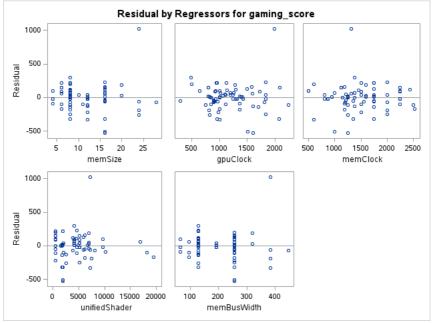
Root MSE	201.69407	R-Square	0.8969
Dependent Mean	657.14829	Adj R-Sq	0.8895
Coeff Var	30.69232		

	Parameter Estimates											
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t						
Intercept	Intercept	1	-1391.45712	121.58077	-11.44	<.0001						
memSize	memSize	1	51.61663	5.98717	8.62	<.0001						
gpuClock	gpuClock	1	0.62666	0.06585	9.52	<.0001						
memClock	memClock	1	-0.05939	0.05616	-1.06	0.2939						
unifiedShader	unifiedShader	1	0.09073	0.00674	13.46	<.0001						
memBusWidth	memBusWidth	1	1.88421	0.39132	4.81	<.0001						

Regression Model: Predicting Gaming Performance

The REG Procedure Model: MODEL1 Dependent Variable: gaming\_score gaming\_score





## **GLM Model: Predicting Productivity Performance**

## The GLM Procedure

Number of Observations Read 76

Number of Observations Used 76

## **GLM Model: Predicting Productivity Performance**

#### The GLM Procedure

#### Dependent Variable: productivity\_score productivity\_score

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	1984075.469	396815.094	21.33	<.0001
Error	70	1302213.663	18603.052		
Corrected Total	75	3286289.132			

R-Square Coeff Var Root MSE productivity\_score Mean

## Results: Program 2 final.sas

R-Square	Coeff Var	Root MSE	productivity_score Mean
0.603743	61.12031	136.3930	223.1550

Source	DF	Type I SS	Mean Square	F Value	Pr > F
memSize	1	1113047.836	1113047.836	59.83	<.0001
gpuClock	1	293317.937	293317.937	15.77	0.0002
memClock	1	294769.480	294769.480	15.85	0.0002
unifiedShader	1	66035.888	66035.888	3.55	0.0637
memBusWidth	1	216904.327	216904.327	11.66	0.0011

Source	DF	Type III SS	Mean Square	F Value	Pr > F
memSize	1	216658.9852	216658.9852	11.65	0.0011
gpuClock	1	123132.3551	123132.3551	6.62	0.0122
memClock	1	253414.6476	253414.6476	13.62	0.0004
unifiedShader	1	101309.5411	101309.5411	5.45	0.0225
memBusWidth	1	216904.3271	216904.3271	11.66	0.0011

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	-508.1736007	82.21742314	-6.18	<.0001
memSize	13.8170925	4.04874493	3.41	0.0011
gpuClock	0.1145567	0.04452733	2.57	0.0122
memClock	0.1401639	0.03797628	3.69	0.0004
unifiedShader	0.0106338	0.00455673	2.33	0.0225
memBusWidth	0.9035969	0.26462613	3.41	0.0011

## **GLM Model: Predicting Productivity Performance**

## The LOGISTIC Procedure

Model Information					
Data Set					
Response Variable	Future_Proof_Score	Future_Proof_Score			
Number of Response Levels	62				
Model	cumulative logit				
Optimization Technique	Fisher's scoring				

Number of Observations Read 76
Number of Observations Used 67

Response Profile				
Ordered Value	Future_Proof_Score	Total Frequency		
1	8.8	1		
2	22.4	1		
3	614.4	1		
4	7.872	1		
5	11.776	2		
6	122.88	1		
7	22.464	1		
8	266.24	1		
9	286.72	1		
10	37.376	1		
11	583.68	1		
12	593.92	1		
13	63.744	1		
14	72.128	1		
15	79.296	1		
16	237.568	1		
17	238.592	2		
18	30.4128	1		
19	657.408	1		
20	762.624	1		
21	77.4144	1		
22	859.392	1		
23	137.4208	1		
24	16.31232	1		
25	174.3872	1		
26	24.44288	1		
27	258.2528	1		
28	262.7584	1		
29	363.9296	1		
30	390.5536	1		
31	430.6944	1		
32	67.25632	1		
33	719.1552	1		
34	726.8352	1		
35	812.6208	1		
36	10.457088	1		
37	121.73312	1		
38	1269.8624	1		

Response Profile					
Ordered Value	Future_Proof_Score	Total Frequency			
39	151.59808	1			
40	214.75328	1			
41	232.46848	1			
42	265.13408	2			
43	323.72736	1			
44	481.44384	1			
45	490.10688	1			
46	503.93088	1			
47	506.08128	1			
48	510.68928	1			
49	547.37664	1			
50	87.965696	1			
51	92.233728	1			
52	920.12544	1			
53	125.329408	1			
54	139.726848	1			
55	158.05098667	1			
56	29.001142857	2			
57	36.181333333	2			
58	36.778666667	1			
59	36.826453333	1			
60	44.909714286	1			
61	467.62666667	1			
62	812.37333333	1			

Probabilities modeled are cumulated over the lower Ordered Values.

Note: 9 observations were deleted due to missing values for the response or explanatory variables.

Class Level Information							
Class Value Design Variables							
releaseYear	2018	1 0 0 0 0					
	2019	0	1	0	0	0	
	2020	0 0 1			0	0	
	2021 0 0			0	1	0	
	2022	0	0	0	0	1	
	2023	-1 -1 -1 -1 -					

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

ı	Score Test for the Proportional Odds Assumption					
ı	Chi-Square DF Pr > ChiSq					
ı	398.7254	420	0.7654			

Model Fit Statistics					
Criterion	Intercept Only	Intercept and Covariates			
AIC	671.566	657.805			
SC	806.052	807.724			
-2 Log L	549.566	521.805			

Testing Global Null Hypothesis: BETA=0							
Test Chi-Square DF Pr > ChiSq							
Likelihood Ratio	27.7613	7	0.0002				
Score	22.0668	7	0.0025				
Wald	26.1664	7	0.0005				

Type 3 Analysis of Effects								
Effect DF Chi-Square Pr > ChiS								
gaming_score	1	0.1980	0.6563					
productivity_score	1	2.0362	0.1536					
releaseYear	5	25.2681	0.0001					

Analysis of Maximum Likelihood Estimates								
Parameter	rameter		Estimate	Estimate Standard Error	Wald Chi-Square	Pr > ChiSq	Exp(Est)	
Intercept	8.8	1	-5.0141	1.0649	22.1699	<.0001	0.007	
Intercept	22.4	1	-4.2558	0.7905	28.9809	<.0001	0.014	
Intercept	614.4	1	-3.8032	0.6778	31.4797	<.0001	0.022	
Intercept	7.872	1	-3.4713	0.6135	32.0182	<.0001	0.031	
Intercept	11.776	1	-2.9964	0.5422	30.5365	<.0001	0.050	
Intercept	122.88	1	-2.8172	0.5206	29.2900	<.0001	0.060	
Intercept	22.464	1	-2.6519	0.5027	27.8335	<.0001	0.071	
Intercept	266.24	1	-2.4987	0.4877	26.2458	<.0001	0.082	
Intercept	286.72	1	-2.3584	0.4754	24.6149	<.0001	0.095	
Intercept	37.376	1	-2.2308	0.4651	23.0069	<.0001	0.107	
Intercept	583.68	1	-2.1159	0.4566	21.4735	<.0001	0.121	
Intercept	593.92	1	-2.0099	0.4494	20.0015	<.0001	0.134	
Intercept	63.744	1	-1.9075	0.4430	18.5400	<.0001	0.148	

	Trosuits. 1 Togram 2 iniai.sas						
	Analys	sis of	Maximum L	ikelihood Es			
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq	Exp(Est)
Intercept	72.128	1	-1.8046	0.4371	17.0464	<.0001	0.165
Intercept	79.296	1	-1.7007	0.4316	15.5264	<.0001	0.183
Intercept	237.568	1	-1.5994	0.4268	14.0462	0.0002	0.202
Intercept	238.592	1	-1.4076	0.4188	11.2957	0.0008	0.245
Intercept	30.4128	1	-1.3119	0.4155	9.9718	0.0016	0.269
Intercept	657.408	1	-1.2179	0.4125	8.7169	0.0032	0.296
Intercept	762.624	1	-1.1300	0.4101	7.5930	0.0059	0.323
Intercept	77.4144	1	-1.0473	0.4081	6.5872	0.0103	0.351
Intercept	859.392	1	-0.9692	0.4064	5.6881	0.0171	0.379
Intercept	137.4208	1	-0.8943	0.4050	4.8759	0.0272	0.409
Intercept	16.31232	1	-0.8187	0.4038	4.1113	0.0426	0.441
Intercept	174.3872	1	-0.7410	0.4027	3.3850	0.0658	0.477
Intercept	24.44288	1	-0.6607	0.4018	2.7034	0.1001	0.516
Intercept	258.2528	1	-0.5778	0.4011	2.0750	0.1497	0.561
Intercept	262.7584	1	-0.4952	0.4006	1.5275	0.1497	0.609
Intercept	363.9296	1	-0.4128	0.4003	1.0631	0.3025	0.662
-	390.5536	1		0.4003	0.6819	0.4089	0.719
Intercept	430.6944	1	-0.3305 -0.2486	0.4002	0.3859	0.4089	0.719
Intercept	67.25632	1	-0.2480	0.4005	0.3639	0.5345	0.780
· ·		1			0.0491		
Intercept	719.1552 726.8352	1	-0.0888 -0.0103	0.4008	0.0491	0.8247	0.915
-		1					1.069
Intercept	812.6208 10.457088	1	0.0664	0.4019	0.0273	0.8688	1.152
· ·							
Intercept	121.73312	1	0.2152	0.4034	0.2846	0.5937	1.240
Intercept	1269.8624 151.59808	1	0.2883	0.4043	0.5084 0.8053	0.4758	1.334
Intercept				0.4055			
Intercept	214.75328	1	0.4436		1.1909	0.2751	1.558
Intercept	232.46848		0.5277	0.4079	1.6732	0.1958	
Intercept	265.13408	1	0.7052	0.4114	2.9382	0.0865	2.024
Intercept	323.72736		0.7980	0.4135	3.7251	0.0536	2.221
Intercept	481.44384	1	0.8930	0.4158	4.6130	0.0317	2.443
Intercept	490.10688 503.93088	1	0.9907 1.0918	0.4184	5.6061 6.7141	0.0179	2.693
Intercept							
Intercept	506.08128	1	1.1972	0.4247	7.9451	0.0048	3.311
Intercept	510.68928	1	1.3077	0.4286	9.3085	0.0023	
Intercept	547.37664		1.4269	0.4333	10.8468	0.0010	4.166
Intercept	87.965696	1	1.5549	0.4388	12.5559	0.0004	4.735
Intercept	92.233728	1	1.6887	0.4453	14.3816	0.0001	5.413
· ·	920.12544 125.329408	1	1.8310	0.4531	16.3319 18.3971	<.0001 <.0001	6.240 7.272
Intercept							
	139.726848 158.05098667	1	2.1491	0.4743	20.5335	<.0001 <.0001	8.578 10.349
Intercept	29.001142857	1	2.3369	0.4897	26.4896	<.0001	15.300
Intercept	36.181333333	1	3.1598	0.5900	28.6781	<.0001	23.566
Intercept	36.778666667 36.826453333	1	3.4383 3.7956	0.6389	28.9637 28.1755	<.0001 <.0001	31.135 44.505
· ·	44.909714286		4.2514				
Intercept		1		0.8386	25.7012	<.0001	70.201
Intercept	467.62666667	1	4.9540	1.1049	20.1039	<.0001 0.6563	141.744
gaming_score			-0.00024	0.000545	0.1980		1.000 0.998
productivity_score	2040	1	-0.00218	0.00153	2.0362	0.1536	
releaseYear	2018	1	-2.7528	0.9350	8.6673	0.0032	0.064
releaseYear	2019	1	-1.0718 -0.4298	0.6280	2.9131	0.0879	0.342
releaseYear	2020			0.5723	0.5639	0.4527	0.651
releaseYear	2021	1	2.3036	0.5759	16.0021	<.0001	10.010
releaseYear	2022	1	1.5385	0.5466	7.9216	0.0049	4.658

Odds Ratio Estimates							
Effect	Point Estimate	95% Wald Confidence Limits					
gaming_score	1.000	0.999	1.001				
productivity_score	0.998	0.995	1.001				
releaseYear 2018 vs 2023	0.042	0.004	0.449				
releaseYear 2019 vs 2023	0.227	0.042	1.221				
releaseYear 2020 vs 2023	0.431	0.093	1.990				
releaseYear 2021 vs 2023	6.627	1.450	30.282				
releaseYear 2022 vs 2023	3.084	0.911	10.434				

Association of Predicted Probabilities and Observed Responses					
Percent Concordant 70.8 Somers' D 0.422					
Percent Discordant	28.6	Gamma	0.424		
Percent Tied	0.6	Tau-a	0.421		
Pairs	2206	С	0.711		

**GLM Model: Predicting Productivity Performance** 

The HPSPLIT Procedure

Performance Information

Performance Information				
Execution Mode	Single-Machine			
Number of Threads	2			

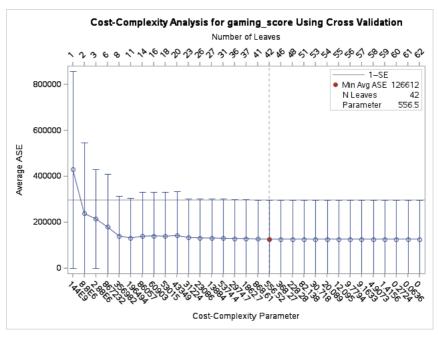
Data Access Information					
Data Engine Role Path					
MYLIB.GPU_SCORED	V9	Input	On Client		

Model Information				
Split Criterion Used	Variance			
Pruning Method	Cost-Complexity			
Subtree Evaluation Criterion	Cost-Complexity			
Number of Branches	2			
Maximum Tree Depth Requested	10			
Maximum Tree Depth Achieved	10			
Tree Depth	10			
Number of Leaves Before Pruning	64			
Number of Leaves After Pruning	44			

Number of Observations Read	76
Number of Observations Used	76

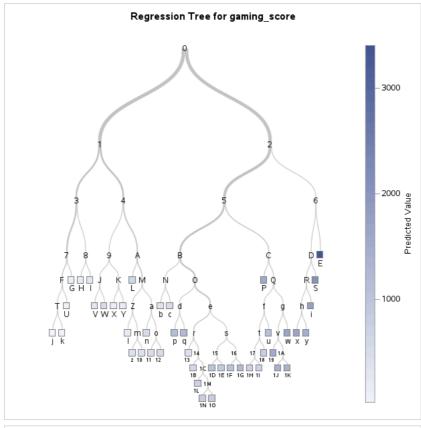
**GLM Model: Predicting Productivity Performance** 

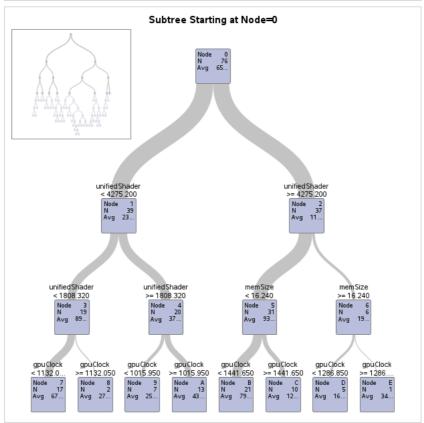
The HPSPLIT Procedure



**GLM Model: Predicting Productivity Performance** 

The HPSPLIT Procedure





**GLM Model: Predicting Productivity Performance** 

#### The HPSPLIT Procedure

Model-Based Fit Statistics for Selected Tree				
N Leaves	ASE	RSS		
44	209.3	15909.9		

Variable Importance					
Variable Training					
Variable	Label	Relative	Importance	Count	
unifiedShader	unifiedShader	1.0000	3915.8	6	
memSize	memSize	0.6904	2703.6	12	
gpuClock	gpuClock	0.5366	2101.1	19	

Variable Importance						
Variable		Tra				
Variable	Label	Relative	Importance	Count		
price_INR	price_INR	0.1608	629.7	1		
memClock	memClock	0.0964	377.5	5		

## **GLM Model: Predicting Productivity Performance**

# The FASTCLUS Procedure Replace=FULL Radius=0 Maxclusters=3 Maxiter=1

Initial Seeds					
Cluster	gaming_score	productivity_score	price_INR		
1	2064.3840	688.1280	250000.0000		
2	1443.2256	737.2800	121245.0000		
3	554.4960	161.2800	10949.0000		

Criterion Based on Final Seeds = 10426.6

Cluster Summary						
				Distance Between Cluster Centroids		
1	1		0		2	143623
2	19	15665.6	63620.6		3	69965.8
3	56	8360.9	26564.7		2	69965.8

Statistics for Variables						
Variable	Total STD	Within STD	R-Square	RSQ/(1-RSQ)		
gaming_score	606.76864	543.92096	0.217856	0.278536		
productivity_score	209.32556	191.85342	0.182371	0.223049		
price_INR	41962	18418	0.812493	4.333123		
OVER-ALL	24230	10639	0.812353	4.329145		

Pseudo F Statistic = 158.01

Approximate Expected Over-All R-Squared = 0.89599

Cubic Clustering Criterion = -4.144

## WARNING: The two values above are invalid for correlated variables.

	Cluster Means					
Cluster	gaming_score	productivity_score	price_INR			
1	2064.3840	688.1280	250000.0000			
2	1035.2990	339.1962	106380.7895			
3	503.7179	175.4807	36417.2321			

Cluster Standard Deviations											
Cluster	gaming_score	productivity_score	price_INR								
1											
2	747.42765	239.02069	27122.27254								
3	458.08664	173.65633	14473.29981								

# **GPU Clustering Based on Performance & Price Segments**

Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output unit	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_A
1	Intel	Arc A310	2022	4	64	1425	2250	9728	112	PCIe 4.0 x16	GDDR6	AD103	\$11,949	554.496	161.28	
2	Intel	Arc A350	2022	4	64	930	2250	9728	112	PCIe 4.0 x16	GDDR6	AD103	\$13,949	361.8816	161.28	
3	Intel	Arc A350M	2022	4	64	1425	2250	9728	112	PCIe 4.0 x16	GDDR6	AD103	\$10,949	554.496	161.28	
4	Intel	Arc A370M	2022	4	64	1365	1188	10240	112	PCle 4.0 x16	GDDR6X	GA102	\$12,949	559.104	85.15584	
5	Intel	Arc A380	2022	6	96	1590	1313	16896	24	PCle 5.0 x16	НВМ3	GH100	\$17,949	1611.8784	30.25152	
6	Intel	Arc A380M	2023	6	96	1110	2250	18176	192	PCle 4.0 x16	GDDR6	AD102	\$17,949	1210.5216	414.72	
7	Intel	Arc A530M	2023	8	128	1382	945	4096	64	PCle 3.0 x16	HBM2	Vega 10	\$19,949	452.85376	77.4144	
8	Intel	Arc A550M	2022	8	128	1800	2000	3840	96	PCIe 4.0 x16	GDDR6	Navi 21	\$19,949	552.96	245.76	
9	Intel	Arc A570M	2023	8	128	1382	945	4096	64	PCle 3.0 x16	НВМ2	Vega 10	\$16,949	452.85376	77.4144	

Obs	manufacturer	GPU_Model	releaseYear	memSize	memBusWidth	gpuClock	memClock	unifiedShader	render output	bus	memType	gpuChip	price_INR	gaming_score	productivity_score	GPU_#
									unit							
10	Intel	Arc A580	2023	8	256	1365	1188	6144	96	PCle	GDDR6X	GA104	\$15,949	670.9248	291.96288	
										4.0						
										x16						

