TechGuru

Computer benchmarking website that helps gamers understand PC performance

Role	UI/UX Designer
Tools	Sketch, Google Analytics
Results	Reached over 3,000 MAU and decreased home page drop-off rate by 20.8%

Background

One of the most frequent questions that PC gamers face is: can my computer run a certain game, and if it can't, what should I do?

Gamers can easily find system requirements of games that they want to play, but being able to decipher the information and actually figure out if their computer can run it requires profound hardware knowledge. Very few people can tell if their AMD Radeon RX 480 can handle a game that requires GTX 1050.



There are a few websites that help you figure out this question, but they all have major pain points. Can You Run it has a distracting design and requires users to download a "Detection.exe" program. This program does not run on Mac computers, and downloading exe files always brings the uncertainty of malware.

In addition, the result of Can You Run it is binary: you either can run a game or cannot run. In fact, there is a lot more to it. Some computers might be able to run a game at 4k resolution. Some might be able to run but will have low frame rates. Some might be just below minimum requirement, so if the user is fine with simple graphics and relatively low frame rate, which some users are, they can still play the game. A binary result misses lots of information that users may want to know.

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Can You Run It has aesthetics issues and requires download of exe files

Gamers ourselves, my friend and I were eager to find a benchmarking website that:

- 1. Gives detailed, non-binary benchmarking results with information that gamers want to know about
- 2. Recommends upgrades or computers (both laptops and desktops) if user's current PC cannot run a certain game
- 3. Has a easy-to-use interface with a clear and well-organized design
- 4. Keeps privacy and security in mind and does not require downloads

With these principles, we designed TechGuru.

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If user's PC cannot run the game, TechGuru recommends PC that can

Product

The user flow of the main feature of TechGuru is:

- 1. Search for a game
- 2. Enter PC specs (some of these are fetched from browser, usually only need to enter CPU and RAM)
- 3. TechGuru does the calculation and tells user how well their computer can run the game
- 4. Users can also choose to look at which aspect of their hardware is the bottleneck, and what upgrades can fix that

This process does not require downloads, and takes usually under one minute. GPU and CPU are given scores based on their specs (clock rate, cache, bandwidth, etc) backed by machine learning algorithms, so that a lay person can easily compare two computers/GPU/CPU. Each game is also given scores for their minimum and recommended requirements, so users know how their PC fall onto the spectrum

Other features include:

- 1. desktop/laptop recommendation based on user needs (budget, brand preferences, software they want to run, etc)
- 2. a hardware/software database where users can search for CPU/GPU/game/

software to see their specs

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	 Purpose 	What will you	use it for?	
	 Budget 	Gaming	Typical Software	
		Programming	Unity 5, Unreal 4, Blender, 3DMax	
	Brand	Office 🔹	Typical Price Range \$1000 - \$3000	
		Video Editing		
	Software	Graphics Design		
	Desult	Game Development		
	Result	4K Gaming		
			Confirm	

Recommends PC based on user need and budget

Ģ	Purchase Guide	Benchmarking	Can I Run Q		My Center
			GPU		
			NVIDIA GeForce RTX 2070 1410Mhz, 8GB VRAM, Desktop,) Dedicated	
			Score: 14376 Type: gaming Clock: 1410Mhz (Boost 1620Mhz) Lithography: 12nm Shader Units: 2304	Stream Processors: 36 TDP: 175w Memory Clock: 14000Mhz GDDR6 Memory Type: GDDR6	
			Texture Units: 144 ROPs: 64 Pixel Rate: 103.7 GPixel/s Texture Rate: 233.3 GTexel/s	Multi-GPU Support: False Refresh Rate at Max Resolution: 60 DX Version: 12	

Hardware database

Design

When designing TechGuru's visual style, I want it to match the techy, futuristic vibe of the world of gaming, so I picked the color scheme and font based on that.

Our target audience are gamers, but not all gamers are hardware geeks. So we added instructions that help our light users complete our benchmarking process.



Instructions of how to access CPU, GPU and RAM information

As a data-based website, TechGuru has a lot of information that users may be interested in learning. However, we understand that users with different levels of hardware knowledge have different interests. A casual player may just want to learn if their computer runs a game, but a more hardcore one would be interested in learning how each aspect of their computer compares with that of the game.

With these differences in mind, we iterated through multiple designs and improved on clarity and visual focus with each iteration. Light users can spot key information that they care most easily, while hardcore users know where to find the technical details that they would like to read.

For example, the result page used to put all the information in one page. During user tests we found that light users may feel overwhelmed and find it hard to locate the information that they are interested in. We decided to center the title and description of the result so that there is a clear focus. We put other information "half hidden" down below, so that if users decide that they want to learn more, they know where to find the information.

To install Windows, You need to first purchase Windows 10 online here. Then, you can use Bootcamp, a pre-



Iterations of benchmarking result page



Iterations of home page

Based on user feedback, we also redesigned our home page and cut down the number of homepage entrances from two to one. It was a hard choice (I really liked the centered design and how the graphics looks, and the alignment of the graphics took forever to get right), but we still did it to give TechGuru a clearer focus: users know exactly what this website is for once they clicked in.

Before the change the home page was a little ambiguous. Users can guess this is a PC-related website at a glance, but to understand what exactly TechGuru does users need to read lots of text. We decided to put the most important feature up front and give it top visual priority, and put the rest of the functionalities down below (and in navbar), so that users can easily tell what the website is for within seconds.

User data proved this was a successful change: home page drop-off rate decreased from 40.1% to 31.8%, a 20.8% decrease.

Now, TechGuru has over 3,000 MAU and 30,000 cumulative users.