Best laptops for computer science students

1. **Samsung Galaxy Book 3 Ultra**

**Performance**: Intel’s Core i9-13900H powers the GalaxyBook Ultra for the most demanding programming tasks. And with the dedicated Geforce RTX 4070 graphics card, playing newer games, editing 4K video, or extensive use of 3D modeling software are also possible.

**Display**: A 16-inch OLED display with 3K (2880×1800) resolution and tall 16:10 aspect ratio delivers a beautiful image. It reaches a peak brightness of almost 400 nits, which is great if you want the screen to ‘pop’ when in a dark room studying Computer Science.

If you’re outside fighting glare from the sun, it doesn’t perform as well, because the GalaxyBook comes with a glossy (vs matte) screen. The option for competitive gaming (as well as smooth scrolling) is provided by the display’s fast 120Hz refresh rate.

**Build quality**: The GalaxyBook 3 features a solid build with a high-quality aluminum chassis, which is stiff enough to flex very little. The design is functional – not as eye-catchingly attractive as that of a MacBook, for example.

Although some might love the minimalistic optics of this laptop, which comes with graphite (gray) and beige color options.

**Battery & portability:** For a 16” model, the Samsung is lightweight at 3.4lbs (1.6kg). It offers decent battery life at around 10 hours in lower-load scenarios.   
**2. Dell XPS 15**

**Performance**: With Intel’s Core i9 chip and a Geforce RTX 4070 graphics card, the Dell sports close to the fastest laptop specs possible today.

Depending on the exact configuration you choose, it has between 16 and 64GB RAM – which means it’s prepared to run even the most memory-intensive Computer Science-related applications without slowing down.

**Display**: The 15.6” touchscreen display has a 16:10 aspect ratio (at 3456×2160, or “3.5K” resolution), meaning there’s more vertical space for you to view many lines of code at the same time. Its OLED panel also beautifully produces a wide range of colors, with high levels of brightness (over 400 nits).

**Build quality**: Dell’s premium model does not disappoint when it comes to a professional appearance and quality build.

**Battery & portability:** The XPS 15 weighs in at 4.3 lbs – quite heavy for a Computer Science student laptop. You do get over 14 hours of battery life doing lower load tasks. Despite its processing power, it can hang with weaker, ultra-portable models when it comes to longevity.  
**2. Apple MacBook Pro**

**Performance**: The M2 Max chip built into the MacBook Pro is fast, although still lagging a bit behind Intel-powered machines.

It sports a quite powerful integrated GPU, which blows other integrated graphics cards out of the water – and can even compete with mid-range dedicated GPUs.

Although not aimed at elite gaming, it does handle games, 3D rendering and 4K video editing, all at decent speeds.

**Display**: No OLED screen for Apple, yet – but its IPS panel with mini-LED backlighting technology is coming close to the former’s image quality, and has even better brightness.

The 16.2” screen with 3456 x 2234 resolution (16:10 aspect ratio) is super sharp and gives you a lot of space for viewing computer science documents, code editors, and more, even side-by-side.

**Build quality**: Product quality and style are what Apple prides itself on. And the MacBook Pro M2 Max does deliver on that front.

**Battery & portability:** The Apple laptop is the ultimate in efficiency. You’re able to get 15 hours or more of battery life in low- to medium-load scenarios. And there’s no device out there able to match its performance/endurance ratio.

**3.Microsoft Surface Pro 9**

Performance: With an Intel Core i7 CPU and 16GB of RAM, the Surface Pro is strong enough for any programming task.

Because it doesn’t have a dedicated graphics card, it’s not great for gaming (or 3D rendering, for that matter), though, so if you’re into playing high definition games at good framerates (and want to fully benefit from the Surface’s excellent 120Hz display) you’d have to look into using a cloud gaming service.

Display: The Surface comes with a bright (up to 450 nits), colorful 13” IPS panel with a high resolution of 2880:1920.

The 3:2 aspect ratio is great for programming, because you get more vertical space compared to a 16:9 or even 16:10 ratio. This means you can see more lines of code at the same time without having to scroll.

The display has a refresh rate of 120Hz, meaning that scrolling through code, documents or web browsers will be extra smooth.

Build quality: Microsoft’s tablet-laptop is built excellently, with a professional look and feel. It’s a joy to handle and work with.

Battery & portability: Under normal conditions, you can get 8-10 hours of use out of the Surface Pro’s battery – which is much more than what most other laptops in this review could manage.

**Best gaming laptop in 2025**

1. [Razer Blade 18 (2024)](https://www.rtings.com/laptop/reviews/razer/blade-18-2024)

he best gaming laptop we've tested is the Razer Blade 18 (2024). This is the one to get if you're willing to splurge on a premium model. It has an all-aluminum chassis that feels incredibly sturdy, rivaling the build quality of Apple MacBook Pros. Sporting an 18-inch display, this laptop delivers an incredibly immersive gaming experience, though this comes at the cost of portability, making it a poor option for on-the-go use. It's configurable with up to an NVIDIA GeForce RTX 4090, the most powerful current-gen GPU, so you get plenty of processing power for smooth gameplay in the most demanding AAA titles like Cyberpunk 2077. The downside is that the fans get super loud, reaching 57.0 dBA at full speed.

You can choose between a 300Hz QHD+ Mini LED and a 200Hz 4k+ IPS display; both have a fast response time and G-SYNC support. The former will give you the best experience, as the higher refresh rate will improve input responsiveness and motion smoothness, and its Mini LED backlight allows for much deeper blacks, resulting in a better dark room viewing experience. Besides, a 4k+ resolution is harder to drive, causing lower frame rate, and the increased resolution isn't immediately noticeable on an 18-inch screen. For online gaming, there's a 2.5Gbps Ethernet port and Wi-Fi 7 onboard to ensure a fast internet connection with the lowest latency. Finally, per-key RGB backlighting. Duh, it's a Razer product, after all.

1. [Dell Alienware m18 R2 (2024)](https://www.rtings.com/laptop/reviews/dell/alienware-m18-r2-2024)

If you want something a little less expensive than the [Razer Blade 18 (2024)](https://www.rtings.com/laptop/reviews/razer/blade-18-2024), check out the Dell Alienware m18 R2 (2024). It's also an 18-inch model available with Intel 14th Gen CPUs and discrete NVIDIA GPUs, up to a Core i9-14900HX and an RTX 4090, respectively. Display options include a 480Hz FHD+ and 165Hz QHD+ IPS panel; both have a fast response time to deliver a clear image and VRR to reduce screen tearing. It performs just as well as the Blade 18, so you aren't losing anything performance-wise; however, its overall build doesn't feel as premium. Additionally, its displays are dimmer, so glare may be an issue in well-lit settings, and the keyboard deck gets much hotter under load. On-the-go use is out of the question—it's even bulkier and heavier than the Razer.

For gaming on the go, we recommend the [ASUS ROG Zephyrus G14 (2024)](https://www.rtings.com/laptop/reviews/asus/rog-zephyrus-g14-2024), a compact 14-inch model. Unlike the Dell Alienware, it has a sleeker, more subdued design, so it won't stick out in a professional environment should you use it for work. However, because it's a smaller laptop with more limited cooling, you have to compromise a bit on performance. The available AMD Ryzen CPUs aren't nearly as fast, and you can only get up to an RTX 4070 GPU. Also, while its OLED display is bright and colorful, it has a lower refresh rate of 120Hz, so the overall gaming experience won't feel as smooth or responsive as the Dell. Storage configuration maxes out at 1TB, which isn't a lot considering the size of modern games, but thankfully, the SSD is user-replaceable.

1. [Lenovo Legion Pro 5 Gen 8 16 (2023)](https://www.rtings.com/laptop/reviews/lenovo/legion-pro-5-gen-8-16-2023)

Our best mid-range pick is the Lenovo Legion Pro 5 Gen 8 16 (2023). Available with AMD Ryzen 7040-series CPUs and NVIDIA 40-series GPUs (up to an RTX 4070), this 16-inch model also delivers an excellent gaming experience. Display options include a 165Hz or a 240Hz QHD+ IPS panel; both have a fast response time and FreeSync support. It has a tactile, full-size keyboard, Wi-Fi 6E wireless connectivity, and tons of ports, including an HDMI 2.1 and Ethernet.

Unfortunately, this model's more budget-friendly price does come with a couple of downsides compared to the Dell above, like the lack of Thunderbolt 4 support, an SD card reader, a facial recognition IR camera, and fewer M.2 storage slots. Also, while it feels sturdy build-wise, it isn't quite the same level as the Dell, as the construction has a bit more plastic. On the upside, it doesn't get as hot or loud under load.

1. [ASUS TUF Gaming A16 Advantage Edition (2023)](https://www.rtings.com/laptop/reviews/asus/tuf-gaming-a16-advantage-edition-2023)

For those on a really tight budget, we recommend the ASUS TUF Gaming A16 Advantage Edition (2023). This 16-inch model has been on the market for a little over a year now, so prices have come down considerably. You can get this laptop with an AMD Ryzen 7 7735HS or Ryzen 9 7940HS CPU, which are both last-gen processors, paired with an AMD Radeon RX 6700S or Radeon RX 7700S GPU. Every configuration can deliver high, consistent frame rates in demanding AAA games at 1080p or 1440p—you just have to tweak the settings a bit. Display options include a 165Hz FHD+ or a 240Hz QHD+ panel; both support variable refresh rate to reduce screen tearing.

This laptop sports a solid port selection for peripherals and external displays, including an Ethernet and HDMI 2.1 port. The RAM and storage are user-replaceable, providing a clear upgrade path down the line. Thermal throttling is minimal under load, but the laptop does get hot and loud. Thankfully, there aren't any hot spots around the WASD keys. This laptop also isn't particularly portable as it's relatively bulky, and you'll need to carry along its fairly beefy charger for use on the go as its battery life lasts a little over an hour when gaming.

LOW BUDGET LAPTOPS

1. HP 240 G7, Intel Celeron, 4GB DDR4 RAM, 500GB Harddisk 14" Laptop – Price Ksh 30,000

 240 G7 Celeron 4GB RAM 500GB HDD 14" Laptop Gen/4 GB/1 TB/Windows 10) laptop has a 14 Inches (35.56 cm) display for your daily needs.

HP 240 G7 Celeron 4GB RAM laptop is powered by Intel Core Celeron (7th Gen) processor, coupled with **4 GB of RAM** and has 1 TB HDD storage at this price point. **HP 240 G7 Celeron 4GB RAM  laptop** runs on Windows 10 Home Basic operating system[.](https://mtech.co.ke/catalogue/category/computing/monitors/)

As far as the graphics card is concerned this notebook has a Intel HD 620 graphics card to manage the graphical functions. To keep it alive, it has a 3 Cell Li-Ion battery and weighs 1.52 Kg. HP 240 G7 Laptop Machine is with 4GB DDR4 RAM and its expandable up to 16GB.

1TB HDD storage installed In the notebook. Notebook comes with DOS, and 1 Year ADP Warranty Intel Celeron 7th generation processor, Intel chipset with HD graphics, 14 inch screen, HD display resolution, optical drive, bluetooth connectivity, 3-cell battery[.](https://mtech.co.ke/catalogue/category/computing/monitors/)

1. Asus X543MA, Intel Celeron, 4GB DDR4 RAM, 500GB Harddisk 15.6" Laptop – PRICE IS KSH 29,000

X543MA Intel Celeron 4GB RAM 500GB HDD 15.6" Laptop is the ideal choice for anyone looking for a laptop to complete their Uni work, everyday browsing and catching up on the work emails.

ASUS X543 laptop is an elegant and lightweight option and weighs just 1.9kg, making it the perfect laptop for anyone who is always on the go.

Asus X543MA Intel Celeron laptop Intel Celeron N4000 processor gives you more than enough power to complete all of those daily productivity tasks.

ASUS X543 Celeron laptop is solidly built and weighs just 1.9kg  ideal if youre always out and about. It has a touch of elegance thanks to a brushed grey finish that turns heads and makes sure you stand out from the crowd.

ASUS Celeron 4GB Laptop features speakers that maximize every cubic millimeter of available chassis space to give you better low frequency performance and reduced noise. The extra-large 19.4cc chamber provides superior bass and excellent sound clarity.