Invent the Future with Us.

Your Future Starts Here

NVIDIA pioneered accelerated computing to tackle challenges no one else can solve. Our work in AI and digital twins is transforming the world’s largest industries and profoundly impacting society — from gaming to robotics, self-driving cars to life-saving healthcare, climate change to virtual worlds where we can all connect and create.

Find Your Perfect Fit

There are endless opportunities at NVIDIA, and you have the freedom to explore them all. It is all about landing where you are the most valued, challenged, and inspired in your work.

Below are general hiring areas for NVIDIA. Check out where your skills fit and search for your area of interest at www.nvidia.com/university.
## Hardware

### ASIC Design
- Digital Systems, Digital Design, VLSI Design or Real-Time Logic (RTL) Design
- Computer Architecture, Computer Arithmetic, Object-Oriented Programming, CMOS Transistors, Circuits

**Programming Skills & Technologies:** Verilog, SystemVerilog, VHDL, Perl, TCL, C, C++, Linux

### Verification
- Formal Verification, GPU or processor Verification or Validation
- Digital Systems, Digital Design, VLSI Design or Real-Time Logic (RTL) Design
- Random functional testing, writing test plans, directed/random diagnostics
- CPU Architecture, Computer Architecture, Software Infrastructure (for validation of architecture)

**Programming Skills & Technologies:** Verilog, SystemVerilog, VHDL, UVM, Python, Perl, TCL, C, C++, Linux

### Physical Design/VSLI
- Synthesis, Static Timing Analysis, Clock/Power Distribution and Analysis, RC Extraction and Correlation, Place and Route, Circuit Design
- CAD and Physical Design Methodologies (flow and tools development), as well as implementation
- Chip Floor Plan, Power/Clock Distribution, Chip Assembly and P&R, Timing Closure, Power and Noise Analysis, and Back-End Verification

**Programming Skills & Technologies:** Perl, C, C++, TCL, Linux, Scheme, Python, SKILL, Make, ICC2, Design Compiler, PrimeTime (Synopsys, First Encounter), Innovus, Virtuso (Cadence)

## Architecture

### Computer Architecture
- Computer Architecture experience in one or more of these focus areas: Computer Graphics, Deep Learning, Ray Tracing, Parallel Programming, Memory Architecture, or High-Performance Computing Systems
- Digital Systems, VLSI Design, Computer Architecture (GPU or CPU Architecture), Computer Arithmetic, CMOS Transistors and Circuits

**Programming Skills & Technologies:** Verilog, SystemVerilog, VHDL, Linux, C, C++, Perl

### Deep Learning Computer Architecture
- Computer Architecture experience in one or more of these focus areas: GPU Architecture, CPU Architecture, Deep Learning, GPU Computing, Parallel Programming, or High-Performance Computing Systems
- GPU Computing (CUDA, OpenCL, OpenACC), Deep Learning Frameworks (PyTorch, TensorFlow, Caffe), HPC (MPI, OpenMP)
- Deep Learning, Modelling/Performance Analysis, Parallel Programming

**Programming Skills & Technologies:** C, C++, Python, Perl, CUDA, OpenCL, PyTorch, TensorFlow, TensorRT, Linux
### Systems Software

**System Software**

- Operating Systems (Threads, Process Control, Memory/Resource Management, Virtual Memory)
- Multithreaded Debugging, Linux Kernel Development, RTOS Development on Embedded Platforms, Data Structures & Algorithm time/space complexity

**Programming Skills & Technologies:** C, C++, Linux

### Graphics Systems Software

**Graphics Systems Software**

- Computer Architecture, Operating Systems, Real-Time Systems Development, Device Driver Programming, Game Console Middleware, or other Low-Level Library Development
- Building Cloud and On-Premise Infrastructure for backend analytics
- 3D/2D Graphics Theory, Implementation & Optimizations, Simulation or Emulation experience (writing & debugging tests)

**Programming Skills & Technologies:** C, C++, CUDA, x86, ARM CPU, GPU, Linux, Direct3D, Vulkan, OpenGL, OpenCL

### Compiler

**Compiler**

- Compiler Development, Open Source Programming, High-Performance Computing (HPC)

**Programming Skills & Technologies:** C, C++, CUDA, Linux, Open Source Tools (CLANG, LLBM, gcc), Testing Production/Automation Tools (XLA, TVM, Halide)

### Firmware & Embedded Software

**Firmware & Embedded Software**

- Operating Systems (Threads, Process Control, Memory/Resource Management, Virtual Memory), Embedded Systems Software Development

**Programming Skills & Technologies:** C, C++, CUDA, Perl, Bash/Shell Scripting, Linux

### Software Security

**Software Security**

- Operating Systems, Data Structures & Algorithms, Cybersecurity, Cryptography, Computer Systems Architecture, Microcontroller and Microprocessor fundamentals (Caches, Buses, Memory Controllers, DMA, etc.)

**Programming Skills & Technologies:** C, C++, Spark, Frama-C, Python, Bash/Shell Scripting, Linux, Formal Verification Tools (Spark, Frama-C), Automated Security Testing & Fuzzing Tools (AFL, libFuzzer), Data Processing (Kibana, Grafana), CI/CD (Jenkins)
<table>
<thead>
<tr>
<th><strong>Software</strong></th>
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<tbody>
<tr>
<td><strong>Development Tools</strong></td>
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<tr>
<td>- Linear Algebra &amp; Numerical Methods, Operating Systems (memory/resource management), Scheduling and Process Control, Hardware Virtualization</td>
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<tr>
<td><strong>Programming Skills &amp; Technologies:</strong> Java, Python, Testing Methodologies (Jenkins), GUI Technologies (AngularJS, Web Services, SOAP/REST), Relational Databases (MySQL, NoSQL, Elastic Search, MongoDB, HBase), Systems Administration (Windows, Linux)</td>
</tr>
</tbody>
</table>

| **Cloud** |
| - Distributed Systems, Data Structures & Algorithms, Virtualization, Automation/Scripting, Container & Cluster Management, Debugging |
| **Programming Skills & Technologies:** Java, Go, C++, SPARK, RAPIDS, REST API, CI/CD, Container Tools (Docker/Containers, Kubernetes), Infrastructure Platforms (AWS, Azure, GCP) |

| **Tools Infrastructure** |
| - Operating Systems, Distributed Systems, Micro-Services Architecture, Logic, Simulation |
| - GPU Development - modeling, analyzing, and debugging GPU hardware for performance |
| - Chip Design, Validation, and Workflow - software design and validation for chips to support hardware |
| - Metrics, Process Management, and Compute Infrastructure - distributed/scalable applications to enable the chip design process |
| **Programming Skills & Technologies:** Java, JavaScript, Unix/Shell Scripting, Graphics & GPU APIs (Vulkan, DirectX, OpenGL, CUDA, OpenCL), Data Processing Tools (ElasticSearch, Kibana, Grafana, MongoDB), CI/CD (Jenkins), C++, CUDA, OOP, Go, Python, GitLab, Linux |

| **Data Science** |
| - Data Science, Data Engineering, Open Source Data Science Tools, Open Source Libraries |
| - Building Cloud and On-Premise Infrastructure for back-end analytics |
| **Programming Skills & Technologies:** Python, C, C++, Data Technologies (Kafka, ELK, Cassandra, Apache Spark) |
### Artificial Intelligence and Deep Learning

<table>
<thead>
<tr>
<th>Area</th>
<th>Skills &amp; Technologies</th>
<th>Projects</th>
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</thead>
<tbody>
<tr>
<td><strong>Autonomous Vehicles</strong></td>
<td>Computer Vision, Mapping, Localization, SLAM, Image Processing, Segmentation</td>
<td>DRIVE</td>
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<tr>
<td><strong>Programming Skills &amp; Technologies:</strong></td>
<td>C, C++, CUDA, Python, Linux, Sensor Input Devices (LiDAR, cameras, radars), Training Frameworks (TensorFlow, Keras, PyTorch)</td>
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<tr>
<td><strong>NVIDIA Projects:</strong></td>
<td>DRIVE</td>
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<tr>
<td><strong>Deep Learning Applications &amp; Algorithms</strong></td>
<td>Deep Neural Networks, Linear Algebra, Numerical Methods and/or Computer Vision, Software Design, Computer Memory (Disk, Memory, Caches), CPU and GPU Architectures, Networking, Numeric Libraries, Embedded System Design and Development, Drivers, Real-Time Software</td>
<td>Riva (Conversational AI), Metropolis (Smart Cities), Clara (Medical Imaging), and more</td>
</tr>
<tr>
<td><strong>Programming Skills &amp; Technologies:</strong></td>
<td>C, C++, CUDA, Python, Linux, Deep Learning Frameworks (PyTorch, TensorFlow)</td>
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<tr>
<td><strong>NVIDIA Projects:</strong></td>
<td>DRIVE</td>
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<tr>
<td><strong>Deep Learning Frameworks &amp; Libraries</strong></td>
<td>Computer Architecture (CPUs, GPUs, FPGAs or other accelerators), GPU Programming Models, Performance-Oriented Parallel Programming, Optimizing for High-Performance Computing (HPC), Algorithms, Numerical Methods</td>
<td>TensorRT, cuDNN</td>
</tr>
<tr>
<td><strong>Programming Skills &amp; Technologies:</strong></td>
<td>C, C++, CUDA, TensorRT, Python, Linux, Docker Containers, CPU, GPU, FPGA</td>
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<tr>
<td><strong>NVIDIA Projects:</strong></td>
<td>DRIVE</td>
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<tr>
<td><strong>Programming Skills &amp; Technologies:</strong></td>
<td>C, C++, CUDA, ROS, Python, OpenGL, Linux</td>
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<tr>
<td><strong>NVIDIA Projects:</strong></td>
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<tr>
<td><strong>Machine Learning</strong></td>
<td>Machine Learning, Deep Learning, Accelerated Computing, GPU Computing, Deep Learning Frameworks, NVIDIA RAPIDS</td>
<td></td>
</tr>
<tr>
<td><strong>Programming Skills &amp; Technologies:</strong></td>
<td>C, C++, PyTorch, TensorFlow, TensorRT, Linux</td>
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### Research

**Research (PhD Required)**
- PhD candidacy in CE, EE, CS, Mathematics, Physics, Signal Processing, Statistics, Neuroscience, or equivalent research experience in those fields
- Track record of research excellence with a strong publication record
- Research Application Areas: Parallel Algorithms, Parallel Programming Systems, Computer Vision, Robotics, Natural Language Processing (NLP), or Recommender Systems

**Programming Skills & Technologies:** C, C++, CUDA, Linux, PyTorch, TensorFlow, Python, MATLAB

[Check out Research Application Areas here](#)

### Applied Research

**Applied Research (BS, MS, PhD)**
- Applied Research Areas: Deep Learning Theory and Applications to Natural Language Processing (NLP), Computer Vision, Graphics, Speech, Reinforcement Learning, or another relevant domain

**Programming Skills & Technologies:** C, C++, PyTorch, TensorFlow, Python, Linux

### Business Operations

**Business Operations (MBA)**
- Product Management, Marketing, Finance, and Operations across multiple teams

### What We Do

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<th>Autonomous Machines</th>
<th>Gaming and Entertainment</th>
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<td>Cloud and Data Center</td>
<td>Healthcare</td>
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<tr>
<td>Deep Learning and Artificial Intelligence</td>
<td>High-Performance Computing</td>
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<tr>
<td>Design and Pro Visualization</td>
<td>Self-Driving Cars</td>
</tr>
</tbody>
</table>

### Where We Work

- Austin, TX
- Durham, NC
- Redmond, WA
- Toronto, Canada
- Bethesda, MD
- Hillsboro, OR
- Santa Clara, CA
- Santa Clara, CA
- Boulder, CO
- Holmdel, NJ
- Seattle, WA
- Seattle, WA
- Champaign, IL
- New York, NY
- Westford, MA
- Westford, MA

NVIDIA Job Description | 6
A Truly Inclusive Culture

Everyone is welcome. Every background offers a new perspective that can only help us grow smarter and better.
Everyone has a voice. Great ideas drive us, no matter who or where they come from.

Early Talent Programs

Internships

Whether you’re pursuing a BS, MS, PhD, or MBA, we have year-round internships available—for a minimum of 12 weeks—with great benefits.

NVIDIA Intern, Ignite, and MBA programs make this a great place to kickstart your journey and take part in meaningful work, making an impact on the next generation of innovation. You’ll make a difference on real projects, working side by side with some of the industry’s brightest minds, and gain hands-on experience with never-before-seen technologies and developments.

New College Graduate (NCG)

Our NCG program, gives you the opportunity to influence areas ranging from high-performance computing and graphics to edge computing, networking, and autonomous machines. We provide great benefits that include ESPP, tuition reimbursement, continuous learning and development programs, paid time off, and more.

How to Apply

1. Explore University Opportunities. Check out our general hiring areas above to see where your skills and interests may fit. Search for your area of interest at www.nvidia.com/university and submit a resume!
2. Get Noticed. Make sure your resume aligns with the area you’re interested in. For our technical and engineering opportunities, our teams like to see your technical and programming skills through past internships, relevant coursework, and cool projects.
3. Stay Connected. Once your resume has been submitted, we have a dedicated team to review profiles who can help match your skills to areas of interest and/or direct openings.
4. We have new roles opening throughout the season. If there’s a fit, our recruiting team will reach out with next steps.
5. In the meantime, follow us on LinkedIn, Instagram and NVIDIA Blog to stay connected!

Ready to Get Started?

For more, visit www.nvidia.com/university