VR Developer

VR developers create immersive virtual reality (VR) experiences by collaborating with cross-functional teams that include designers, artists, programmers, and quality assurance (QA) experts. Their responsibilities include developing VR applications, implementing interactions, optimizing performance, and ensuring a seamless and immersive user experience in virtual environments.

Top three responsibilities

Software development
Leverage common VR toolkits, software development kits (SDKs), and custom solutions to develop immersive VR experiences.

Performance optimization
Identify and address bottlenecks within VR applications to ensure high performance standards for publication approval and comfortable user experience.

Hardware integration
Implement and troubleshoot VR hardware components, ensuring seamless functionality and compatibility with VR applications during development and publication.

Top three skills

Programming
Maintain and optimize code using established APIs, efficient coding styles, and best practices. Continually refactor to improve readability and performance.

VR interaction creation
Set up VR project settings using VR SDKs, ensure user safety with guardian systems, and optimize locomotion and accessibility.

Optimization
Conduct performance profiling, optimize apps for seamless frame rates and analyze asset impact for a smooth, uninterrupted VR experience.
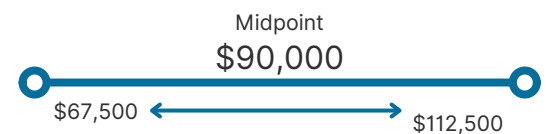
Career Stage

Mid-level
3-5 years of professional experience

0-2 years		5+ years

Pay Range

Midpoint
$90,000

$67,500 ←————→ $112,500

Note: These ranges are built using the Radford compensation database. They are based on the 50th percentile of data for all industries, company sizes, sectors and US locations. The minimum of the range is 25% lower than the 50th percentile (midpoint), and the maximum of the range is 25% of the maximum. These ranges are not reflective of Unity's compensation ranges for the same or similar roles, but are intended to be broad ranges to encompass all US geographies and company types. This information is not to be shared with any person as means to inform them about Unity's compensation ranges or philosophy.

Alternative Titles

A VR developer may also have the following alternative titles:

- VR software engineer
- Immersive experience developer
- VR content developer
- Virtual reality engineer

Other Terms

Job seekers should also be aware of the following terms while looking for roles:

- Spatial computing
- Mixed reality (MR)

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Key traits and qualities of a VR developer

VR developers are multifaceted creators with a diverse set of real-time 3D (RT3D) skills. Scripting is a key area of expertise for them, and they use various APIs and VR-focused SDKs to create interactive virtual reality experiences. They have an in-depth understanding of different VR hardware and are skilled at troubleshooting hardware related issues during production. Often having a generalist background, VR developers might also be able to create or implement diverse assets like 3D models, animations, audio, and VFX. Due to the typically smaller scale of VR production studios, developers tend to be familiar with the entire production pipeline, from initial design to publication. VR developers understand the importance of project optimization and are familiar with different techniques for profiling applications. An ideal VR developer is technically inclined, excels in team communication, and places a deep emphasis on user experience and interaction.

Responsibilites

Much of a VR developer's time is spent implementing interactions and functionality as described in a project's design documents. While a major focus will be dedicated to VR specific interactions, core application functionality is also an important area of development. Below are a sample of the most common responsibilities that VR developers are assigned, but specific responsibilities will vary from company to company.

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Job details

Core Responsibilities

Most VR developers will be assigned these responsibilities. All VR developers should be able to perform the following tasks:

Software development: VR developers create applications using specialized frameworks, SDKs, and RT3D engines such as Unity or Unreal. They leverage their programming skills to create core application functionality, implement VR specific interactions, add functionality to user interfaces, and create other interactive features based on design doc specifications.

User experience (UX) implementation: VR developers collaborate closely with UX designers to implement intuitive and accessible interactions using VR hardware. Depending on the needs of the project, they may create alternate control systems, customizable settings, or other features designed by the UX team. Features implemented by VR developers help increase the audience that is able to use the application.

VR interaction implementation: VR developers leverage specialized frameworks and SDKs to implement application-specific functionality, including features like hand and eye tracking, haptics, gesture and voice recognition, and spatial audio. Their responsibilities extend to crafting VR-specific features for seamless interaction within the virtual environment, alongside more generic functionalities like data input and UI navigation.

Performance optimization: VR experiences demand high performance to maximize user comfort during use. VR developers regularly profile applications to identify and address performance bottlenecks such as framerate drops and rendering issues.

Hardware integration: VR developers work with various VR hardware devices, such as headsets, motion controllers, and haptic feedback systems. They integrate and optimize the functionality of these hardware components within VR applications, ensuring compatibility and an optimal user experience.

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Testing and quality assurance: VR developers conduct testing and quality assurance of VR applications to ensure stability, functionality, and accessibility. These tests involve user feedback sessions, bug fixing, and profiling to identify and resolve issues related to interaction, performance, and compatibility across different VR platforms.

Collaboration and communication: VR developers collaborate closely with designers, artists, and other developers to align the technical implementation with the creative vision of the VR experience. They communicate effectively in order to understand requirements, provide input on technical feasibility, and ensure seamless integration of VR elements into the overall development process.

Documentation: As part of production, VR developers document the different processes that are used to create components of their projects. This ensures that everyone on the team is aware of the techniques needed to produce the application.

Secondary Responsibilities

These tasks are slightly more specialized, but it will greatly benefit VR developers to be familiar with the following tasks should they be assigned:

Spatial audio implementation: VR developers might be asked to implement spatial audio systems within VR applications. This involves not only placing sounds in a 3D space and implementing accurate audio reflections (echoes), but also demands an understanding of audio cues.

Multiplayer experience creation: VR developers often need to have a good understanding of creating multiplayer experiences, even if only on a small scale for simple collaboration applications. To accomplish this, developers should be familiar with popular networking frameworks.

Cross-platform development: Depending on the project, an application may be released for multiple target devices. In this case, a VR developer might be expected to ensure compatibility and performance across various platforms by testing the application on each device type and adjusting as needed to meet the requirements of each system.

Personal Responsibilities

Beyond day-to-day responsibilities, VR developers should remain focused on increasing their skills and building their knowledge bases to remain up to date with VR technologies and industry standards.

Continuous learning and skill development: VR technologies and best practices continue to evolve rapidly. VR developers must invest time in staying up to date with the latest VR development techniques, hardware advancements, and VR-specific design principles. They should also continuously learn and apply new skills to create innovative and cutting-edge VR experiences.

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Job details

Required skills

The specific tasks assigned to a VR developer will vary depending on the company they work for and the project they're working on. The skills listed below are universally relevant no matter the project, and these skills ensure that a VR developer is well rounded and adaptable to most jobs.

Holistic VR comprehension:

☐ Demonstrate proficiency in vector math for spatial calculations and transformations in 3D space.

☐ Demonstrate knowledge of major components of VR hardware, including headsets, controllers, and sensors.

☐ Maintain an awareness of general VR hardware and software limitations and requirements.

☐ Research advancements in VR technologies, hardware, and design principles.

☐ Experiment with emerging VR development techniques, frameworks, and tools.

Effective scripting practices:

☐ Write code that utilizes existing APIs.

☐ Maintain a code style that is efficient and easy to read.

☐ Use coding best practices to maximize code efficiency.

☐ Refactor and improve code as needed to improve readability and efficiency.

VR application planning:

☐ Select the appropriate VR hardware for a project based on application goals and requirements.

☐ Review proposed VR concepts to ensure technical feasibility and a positive user experience.

☐ Review and verify viable accessibility options exist within the VR application concept.

Building VR interactions:

- ☐ Configure project settings according to specific VR platform requirements.

- ☐ Use VR specific SDKs to implement common user interactions such as object grabbing, manipulation, and UI navigation.

- ☐ Develop and integrate robust VR guardian/chaperone systems to enhance user safety within the virtual environment.

- ☐ Implement and optimize locomotion techniques, such as teleporting, constant movement, room scale, and stationary, to create immersive and comfortable user experiences.

- ☐ Create realistic spatialized 3D audio effects by applying audio experience design principles.

- ☐ Implement mixed reality features such as spatial anchors to allow users to interact with both virtual and physical objects/environments simultaneously.

Performance optimization:

- ☐ Conduct performance profiling directly on target hardware to ensure the VR application performs optimally once deployed to devices.

- ☐ Optimize VR applications to achieve smooth frame rates, ensuring an immersive and responsive VR experience.

- ☐ Analyze the performance impact of polygon count, particles, visual effects, lighting, and shadows on an application to avoid runtime disruptions.

Debugging and troubleshooting:

- ☐ Implement unit tests to ensure that code functions as intended.

- ☐ Diagnose and fix code that compiles but fails to perform as expected.

- ☐ Troubleshoot runtime exceptions.

- ☐ Debug applications on multiple platforms.

- ☐ Profile and debug performance issues.

Publishing VR applications:

☐ Deploy VR projects to various head-mounted displays (HMDs) to ensure compatibility and optimal user experience.

☐ Demonstrate a general understanding of the VR application deployment process.

☐ Research specific submission guidelines for target VR platforms.

☐ Create required manifests and signing for security and verification purposes.

Team collaboration:

☐ Receive and provide feedback in a positive and constructive manner.

☐ Participate in listening, constructive feedback cycles, code and peer review.

☐ Have an awareness of popular project management methodologies (for example, agile, waterfall).

☐ Have familiarity with key performance indicators (KPIs) and objectives and key results (OKRs) to comprehend their significance within the project context.

☐ Use task tracking tools to keep a record of current tasks within a project.

☐ Create and maintain documentation for code, processes, and other project-related work.

Personal development:

☐ Develop effective time management to balance work, personal life, and relaxation for a well rounded lifestyle.

☐ Develop stress-management techniques such as mindfulness practices to offset the demanding nature of real-time 3D (RT3D).

☐ Build a strong professional network within the RT3D industry through forums, conferences, and meetups to gain insight and support from peers and mentors.

☐ Develop approaches to critical thinking by thoughtfully evaluating situations and systematically reviewing information to make informed decisions.

Tools used

In the RT3D industry, VR developers use a large variety of tools for different tasks throughout the production process. The following list highlights important tool categories that are often required for day-to-day work. VR developers should be proficient in at least one tool from each category. Demonstrating an understanding of how and why a category of tools is used is more important than knowing the specific programs a company uses.

VR development platforms: VR developers primarily work with VR development platforms such as **Unity** or **Unreal Engine**. These platforms provide specialized tools, libraries, and frameworks to build immersive VR experiences.

VR hardware: VR developers work with various VR hardware devices and peripherals, including VR headsets such as the **Meta Quest** and **HTC Vive series**, motion controllers, and tracking systems. They need to be familiar with the specifications and capabilities of different VR hardware to optimize their applications accordingly.

VR SDKs and APIs: VR developers utilize VR-specific SDKs and APIs to interact with VR hardware, implement VR interactions, and access platform-specific features. Examples include the **Oculus SDK**, **SteamVR**, and **OpenVR**.

Integrated development environments (IDEs): IDEs such as **Visual Studio**, **Visual Studio Code**, and **JetBrains Rider** provide a comprehensive coding environment with features like code editing, debugging, version control integration, and project management.

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Programming languages: VR developers work with programming languages suited for real-time 3D development, such as **C#**, **C++**, and **Python**. The choice of language will depend on the specific engine, project requirements, or company preferences.

Version control systems: Version control systems like **Git** or **SVN** are crucial for collaboration and code management. VR developers use these tools to track changes, manage code branches, and collaborate with other team members.

Debugging and profiling tools: Debugging and profiling tools, such as **Visual Studio Debugger** and **Unity Profiler**, help VR developers identify and troubleshoot issues in their code. These tools assist in understanding runtime behavior, performance bottlenecks, and memory management.

Project management and communication tools: VR developers often use project management tools like **Jira**, **Trello**, and **Asana** to track tasks, collaborate with team members, and communicate project updates. Communication tools like **Slack** and **Microsoft Teams** facilitate real-time communication and collaboration within the development team.
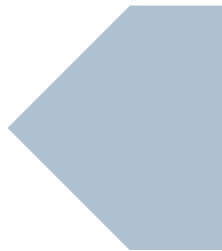
Collaborative roles

VR developers typically work closely with various job roles on a day-to-day basis, collaborating as part of a larger development team. The following list includes common job roles that VR developers may work with:

UI/UX designers: UI/UX designers work closely with VR developers to create intuitive and immersive user experiences within the virtual environment. They collaborate on designing user interfaces, interaction patterns, and visual elements to ensure a seamless and engaging user experience in VR applications.

3D artists/modelers: 3D artists and modelers are responsible for creating the visual assets, environments, and characters within the virtual world. VR developers work closely with 3D artists to integrate these assets into the VR application, optimize them for performance, and ensure visual fidelity and consistency.

Sound designers/audio engineers: VR developers collaborate with sound designers and audio engineers to create an immersive audio experience in VR applications. They work together to implement spatial audio, sound effects, and music that align with the virtual environment and enhance the overall immersion.

Game designers: If the VR application involves gaming elements, VR developers collaborate with game designers to implement gameplay mechanics, level designs, and overall game structure within the virtual environment. They work together to ensure a cohesive and engaging gaming experience in VR.

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Collaborative roles

Quality assurance testers: QA testers play a critical role in ensuring the quality and functionality of VR applications. VR developers work closely with them to identify and fix bugs, test VR interactions, and ensure a smooth and comfortable user experience in the virtual environment.

Project managers/producers: Project managers or producers oversee the development process and ensure the successful completion of VR projects. They collaborate with VR developers to define project goals, manage timelines, allocate resources, and coordinate the overall development effort.

Hardware technicians: VR developers might work closely with hardware technicians or specialists who provide support for VR hardware setups, maintenance, and troubleshooting. They collaborate to ensure app and hardware compatibility, optimize performance, and address any hardware-related issues that may arise during development or deployment.

Data analysts: In some cases, VR developers collaborate with data analysts who analyze and interpret user data collected from VR applications. They work together to integrate tracking mechanisms, gather user behavior data, and implement data-driven features or improvements in the VR experience.

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Collaborative roles

Job progression

The XR field often requires VR developers to rapidly build diverse skills, enabling flexibility in their career path. With strong skills, developers can switch to non-XR fields or specialize within XR, broadening their career options. Here are some potential paths for VR developers:

Senior VR developer: With increased experience and expertise in VR development, individuals can progress to senior VR developer roles. In these positions, they take on more complex projects, lead development teams, provide technical guidance, and contribute to the overall strategic direction of VR projects.

VR technical artist: VR technical artists combine their artistic skills with technical expertise to bridge the gap between art and programming in VR development. They focus on optimizing visual assets, implementing shaders, creating efficient pipelines, and ensuring the technical feasibility of the artistic vision within the VR environment.

VR designer: VR designers specialize in creating intuitive and immersive user interactions within virtual reality, with a strong emphasis on accessibility and user experience. They are dedicated to designing and implementing natural and engaging VR experiences, ensuring inclusivity for all users.

VR software engineer: VR software engineers are responsible for designing the overall software architecture of VR applications. They define the technical framework, make architectural decisions, and ensure scalability, performance, and maintainability of the VR software solutions. They collaborate closely with the development team and provide technical leadership.

Project manager/producer: With experience in VR development, individuals may transition into project management or production roles within the VR industry. VR project managers or producers oversee the planning, execution, and delivery of VR projects, and manage resources, timelines, and budgets.

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Job progression

Industry list

As previously referenced, the XR field is still relatively new, and fresh applications for the technology emerge regularly. This presents an exciting opportunity for VR developers to influence the future of various industries. Beyond gaming, many sectors are already embracing VR for training purposes. VR development frequently intersects with AR development, as numerous companies integrate different aspects of XR concurrently. With the introduction of new technologies in both industrial and consumer markets, the demand for VR development is anticipated to increase. The following is a list of common industries that use VR today:

- Aerospace and defense

- Animation, media, film, and entertainment

- Architecture, engineering, and construction (AEC)

- Automotive

- Education and training

- Energy and natural resources

- Games

- Healthcare

- Manufacturing and engineering

- Marketing and advertising

- Retail and ecommerce

The application process

Prepare for the job hunt

After honing your skills to undertake a VR Developer role, it's time to gear up for the next significant step - the job search. Part two of this guide equips you with essential resources, guiding you through the intricate world of job applications and interviews.

In this fast-paced and competitive field, simply having the required technical proficiency isn't enough. It's about showcasing your abilities to potential employers in a compelling way. This section will guide you on how to craft impactful resumes and cover letters, construct an engaging portfolio that effectively exemplifies your unique talents, and optimize your LinkedIn profile to catch the attention of prospective employers. It also provides effective tips to help you excel in interviews.

This portion of the guide also imparts practical strategies to expedite your job search, aiding you in identifying ideal VR Developer roles that match your career ambitions. It underlines the importance of resilience in addressing job rejections, and how to leverage these experiences for your professional growth. Essentially, this guide serves as your all-in-one kit to help you secure a VR Developer role.
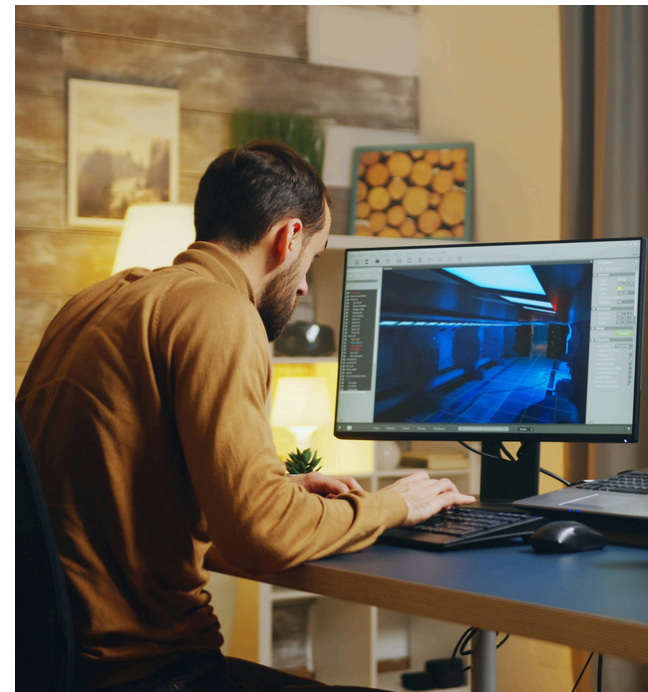
Resume

A resume is a vital tool for anyone seeking employment in the RT3D industry. Even when you're starting out in the industry and have little experience to showcase, your resume is an opportunity to highlight your skills and knowledge, and also serves as a way to point employers to samples of your work. You will often be asked to provide a resume in addition to filling out information about yourself in an application. Having a resume already prepared will help save you time during your job search.

When preparing a resume, be sure to include the following information:

☐ **Name and contact information:** This should be the full name you go by in a professional setting. If you are concerned about your contact information being publicly available, it's okay to minimize the information you include. However, you must have at least one contact method, such as an email, through which an employer can contact you to arrange an interview.

☐ **Desired title:** This should align with the job you're applying for (in other words, VR developer).

☐ **Skills:** List your technical skills, including specific scripting languages and software packages, in bullet format.

☐ **Projects:** Any projects you have worked on, and your specific role in them if on a team. Projects that you worked on while in a training/academic program are fine to list here. If you have any relevant work that has been published, be sure to include it.

☐ **Links to your work:** Relevant links to your LinkedIn, portfolio, github, or other work samples

☐ **Education:** School or other forms of training, if applicable.

☐ **Certifications/certificates:** Anything you earned during the course of your learning for this role that is formally recognized, if applicable.

☐ **Internships/apprenticeships:** Any formalized training experience you participated in, if applicable. Be sure to include information on the company that managed your internship/apprenticeship.

☐ **File name:** Ensure that the file name of your resume is simple, descriptive, and most importantly contains your full first and last name.

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Resume

Automated Tracking Systems (ATS)

An important aspect of resume preparation to keep in mind is that today most employers make use of applicant tracking systems (ATS), which are a type of software that help companies manage the recruitment process. An ATS automates the process of sorting and filtering resumes to help identify likely candidates for a human reviewer. While it might seem frustrating that a computer reviews your resume before a person does, this enables recruiters and hiring managers to spend more time on resumes and potential job candidates than they would be able to otherwise. Because the first step of the application process is managed by computers, it's extremely important that you format your resume so that it's optimized for an ATS.

When preparing your resume for an ATS, be sure to review:

☐ **Keywords:** Include relevant keywords in your resume that match the job listing. ATS often scans for specific words or phrases to determine the relevance of an application. For example, if the job listing is looking for experience with Unreal Engine, and you know both Unity and Unreal, do not list "various game engines", but explicitly list the engines by name.

☐ **Formatting:** Use a clean and simple format. Avoid complex layouts, images, or graphics that may confuse the ATS. It's a general best practice to avoid including any images, especially a photo of yourself in your resume.

☐ **File format:** Submit your application in a format that the ATS can easily read, such as plain text or a common document format like .docx or .pdf. It's a good idea to have your resume ready in multiple formats ahead of time. Most word processing programs allow you to export to multiple formats. When uploading your resume to an application page, take special care to upload using the recommended format.

☐ **Section headings:** Clearly label sections of your resume (for example, "Work Experience", "Education", "Skills", etc.) to help the ATS categorize information accurately. Don't use specialized terms or uncommon acronyms in headers.

☐ **Bullet points:** Present information using bullet points for clarity. ATS systems often prefer straightforward, concise content.

☐ **Special characters:** Minimize the use of special characters, symbols, or unusual fonts, as these may not be interpreted correctly by the ATS. Default fonts found in most word processing programs are generally a safe choice.

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Resume

Cover letters

While often considered one of the most time consuming aspects of applying for a job, cover letters are the first chance you have to introduce yourself to a company using your own words, and therefore represents an important opportunity. While an ATS may scan your cover letter for keywords much in the same way it does your resume, it's far more likely that an actual person will be reading your cover letter. It's common for people just entering the industry to create generic cover letters or even skip them entirely, so taking the time to craft a meaningful cover letter will help the reader remember you, and this may lead to an increased chance of getting an interview. Take care to make a positive and meaningful first impression.

While you may be able to reuse some content between cover letters, such as a personal introduction or an overview of your skills, most of a cover letter should be written specifically for the company you're sending it to. A cover letter should express why you would be a good candidate for the role, what specifically drew you to the job, and any interesting anecdotes or additional information that might pique the reader's interest.

A cover letter should be one page or less, and should contain the following information:

- A brief introduction of yourself

- What interests you about the company

- What made you want to apply for the role

- What makes you uniquely qualified for this specific job

- Thank the reader for their time

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Cover letters

Portfolio

A professional portfolio is one of the most important assets of all creative professionals in RT3D. It serves as a single point of reference for everything that you are currently capable of doing in your chosen area of focus. Portfolios are of such importance that a dedicated section covering recommendations can be found later in this Universal Job Profile. This section highlights practical details of what your portfolio should include for the application process.

When preparing your portfolio to be reviewed with your application, be sure that includes the following:

☐ **Your name and contact information:** This should be included in case the hiring manager reviewing your portfolio loses track of your resume. Ensure you're easy to contact from the portfolio itself. Consider including a link to your LinkedIn profile or to your resume.

☐ **Project descriptions:** Provide clear and concise descriptions for each project, explaining the goals, features, and technologies used. Highlight any unique challenges or innovative solutions you implemented. This helps prospective employers understand the scope and complexity of your work. Be sure to note if you developed a project as part of a team, and what role you performed.

☐ **Published projects:** Highlight projects that have been fully published and specify the platform they are available on. Published works underscore your ability to work across the entire production pipeline, which shows a deep understanding beyond prototype creation. Published projects are significant achievements and are of particular interest to employers.

☐ **Visual assets:** Incorporate visual assets such as screenshots, videos, or interactive demos to showcase the visual quality and functionality of your projects. Visual elements provide a tangible representation of your work and make it easier for employers to assess your skills.

☐ **Ease of navigation:** When putting your portfolio together, consider the type of content that you'll be showcasing and select a platform that will best serve that kind of content. If you choose to create your own custom website to host your portfolio, ensure that viewers can easily find the full contents of your portfolio with a minimum number of clicks.

Portfolio recommendations

As a VR developer, your primary challenge will be presenting your work in an accessible way. With the exception of publicly published works on platforms such as Steam, it will be challenging for recruiters and employers to view your portfolio pieces in VR, so much of your work will be shown in video format. When recording videos of your applications, be sure to think carefully about what features you're trying to show and ensure that the message is being communicated well. For the rare cases when an employer may ask, have fully built versions of your applications available to share.

A few examples of portfolio pieces for a VR developer may include the following:

A small scale complete VR experience: Create a fully realized VR experience that highlights your ability to build a complete product. This could be a virtual environment, a game, or an interactive simulation. Ensure it demonstrates your proficiency in user interaction, accessibility, and follows VR development best practices.

A training simulation: With training being a popular use case for VR, having a small educational experience in your portfolio can make you stand out to multiple employers. Create a complete experience that targets a specific industry or teaches a specific skill. The subject can be complex or simple, such as equipment operation or making a sandwich.

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Portfolio

VR interaction showcase: If you are also interested in UX or design, create a series of mini-projects that demonstrate different VR interactions, such as object manipulation, teleportation, and hand tracking. Use this as an opportunity to demonstrate your ability to develop unique approaches to interactions, and be sure to avoid simply using base interactions that are easily implemented with many SDKs.

Accessible VR experience: Design and implement a VR application with a strong focus on accessibility. Consider features like customizable controls, voice commands, and other accessibility options to ensure that your VR experience is inclusive for a diverse audience.

Mixed reality integration: As more hardware becomes capable of supporting mixed reality, the ability to create applications that make use of a user's physical environment will become more in demand. Develop an application that seamlessly combines virtual and physical environments, allowing users to interact with both.

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Portfolio

Portfolio maintenance

A portfolio is an asset that you should regularly curate as your skills grow and evolve. It is also a very good place to focus your efforts on as you wait for new job opportunities to become available. Consider the following when maintaining your portfolio:

☐ **Regularly remove outdated work:** Ensure your portfolio always aligns with your current skill level. Regularly review and eliminate pieces that no longer reflect your expertise or current approach to work. This ensures that viewers are able to accurately estimate your skill level.

☐ **Avoid unedited tutorial work:** Early on, your portfolio may include tutorial or assignment pieces. Improve these by adding variation or extra content for uniqueness, making your portfolio stand out from others who used the same tutorials.

☐ **Show your personality with your work:** Use your portfolio to showcase your interests, values, and unique style to potential employers through diverse projects that highlight your technical skills and problem-solving approach.

☐ **Focus on quality and diversity of work:** Choose fewer, high-quality projects for your portfolio to showcase diverse skills. Each should highlight your technical abilities, problem-solving, and creativity. Include more than one example to show potential employers your skills.

LinkedIn profile

In the RT3D industry, a strong LinkedIn profile is crucial and often underestimated by job seekers. LinkedIn is a vibrant community for the RT3D industry, regularly used by recruiters for initial candidate evaluations. Not having a LinkedIn profile might raise questions. The platform is a crucial networking space for the RT3D community where professionals share, stay updated about industry trends, and find job opportunities. Therefore, a well-crafted LinkedIn presence significantly boosts professional visibility and navigation of the RT3D job market.

When creating your LinkedIn profile, consider the following:

☐ **It is a professional space:** While LinkedIn can be considered a social media site, it's one for professional use exclusively. Use LinkedIn with the expectation that potential employers will see everything you post and include on your profile.

☐ **Create your resume first:** Having your resume created first will significantly speed up the process of creating your LinkedIn profile.

☐ **Customize your LinkedIn URL:** Personalize your LinkedIn URL to make it easy to share. A good rule of thumb is to make your URL your name.

☐ **Join and participate in groups:** Join LinkedIn groups that align with your interests to connect with fellow professionals in the industry you wish to join. Engage in discussions and share your insights in a respectful, professional manner.

☐ **Including a professional photo is normal:** Unlike on a resume, LinkedIn profiles can include a personal photo. This should be a professional, clear image of yourself, not a group shot. Essentially, choose a picture that would be suitable for a school or work ID.
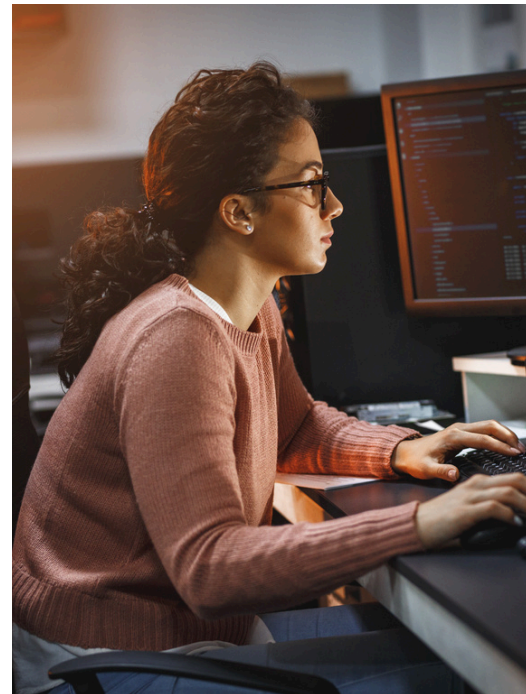
Application Tips

☐ **Spell check:** Carefully check your resume, cover letters, portfolio, and LinkedIn profile for spelling errors. If possible, have your documents reviewed by another person to help identify any words that are spelled correctly, but used in the wrong context (for example, do you actually have a "Skulls" header in your resume, rather than a "Skills" header?).

☐ **Find the hiring point of contact:** When applying for jobs, identify and connect with the hiring manager or recruiter via the company's site or LinkedIn. After applying, express your interest in the role to show proactivity. This gets you noticed, creates a good first impression, and aligns you with the goal of finding a proper fit, increasing your chances of standing out.

☐ **Ask questions during the interview:** Have questions ready for your interview. This shows your interest in the role and helps you understand expectations and company culture. Being question-less could appear as disinterest or lack of preparation.

☐ **Follow up:** Follow up with all communication during the application process. It shows politeness, an appreciation for people's time, and reinforces your interest. Respond to emails/calls promptly but not outside of working hours. Use follow up emails to thank people, ask additional questions, or clarify next steps post-interview.

☐ **Assess company fit:** Remember, interviews are a two-way street. Just as the company is evaluating you, assess if you'd thrive there. Don't rush into unsuitable jobs due to circumstances, as you may end up job hunting again soon. During interviews, gauge if the company matches your values and work style for a better career fit.

Navigating job rejection

Don't take rejection personally: Job hunting can be challenging, especially when faced with rejection, lack of interviews, or unanswered applications. It's crucial not to tie these setbacks to your worth or skills. Rejections are often part of the process and are not indicative of your abilities or personal value.

Recognize the numbers: Job openings frequently attract a large pool of applicants, making it easy for resumes to be overlooked. Understand that the competition is fierce, and rejection doesn't necessarily reflect on your qualifications. Sometimes, it's a matter of timing, and your application might not align with the current needs of the company.

Appreciate the complexity of decisions: Companies often encounter situations where they have multiple qualified candidates but can only choose one. This means rejection doesn't always correlate with your capabilities; sometimes, it's about finding the best fit within a pool of strong contenders. Don't let such decisions undermine your confidence.

Persistence is key: Job hunting is, in many ways, a numbers game. Consistency and persistence often yield positive results. Rejection is a natural part of the journey, but it doesn't define your worth or potential success. Use each setback as an opportunity to refine your approach, learn from the experience, and continue applying with confidence.

Seek feedback: If possible, consider reaching out to recruiters or hiring managers for constructive feedback on your application. This can provide valuable insights and help you tailor future applications. Remember, the aim is not only to secure a job, but also to find the right fit for both you and the employer.

Focus on self-improvement: Use the downtime between applications to enhance your skills, update your resume, or explore new opportunities for professional development. This proactive approach not only boosts your confidence but also demonstrates to potential employers that you are committed to continuous growth.

Preparing for an interview

Moving to the interview stage is a pivotal moment for your job search and can often come with nervousness or stress. Proper preparation is key to presenting yourself as a confident and capable candidate. This section will provide some essential steps to ensure you navigate the interview process seamlessly and leave a lasting positive impression on potential employers.

☐ **Respond promptly:** When contacted by a hiring manager or recruiter for an interview, respond promptly. Don't feel pressured to respond outside of regular working hours, however, demonstrate your enthusiasm and commitment by acknowledging their outreach in a timely manner.

☐ **Share your availability:** Many companies use special applications that allow you to self select your availability, but if this isn't the case, provide a range of dates and times for the interview within the upcoming weeks. If dealing with different time zones, specify your current time zone to avoid scheduling confusion.

☐ **Time your availability strategically:** Whenever possible, schedule the interview on a date and at a time when you have few or no other commitments. This minimizes stress and allows flexibility for the interview to extend if needed.

☐ **Present yourself professionally:** Regardless of the interview format (in person or online), present yourself professionally. While RT3D dress codes may lean towards casual, research the company's expectations and opt for business casual attire if uncertain.

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Interview Preparation

☐ **Online interview etiquette:** If your interview is online, be sure to implement the following guidelines:

- Choose a quiet location to avoid interruptions.
- Test your camera, microphone, and audio in advance to prevent technical issues.
- Pay attention to the background, ensuring it is neat and presentable.
- Consider using a professional digital background if necessary.

☐ **Practice interview:** If you feel nervous, consider conducting a practice interview. This helps familiarize yourself with common questions and boosts your confidence. This can be done with a trusted friend or family member, or simply by answering example interview questions out loud by yourself.

☐ **Stay positive:** Avoid excessive negativity, even if your job search has been challenging. Present yourself as genuinely excited about the opportunity, focusing on a positive mindset; remember, this interview might lead to a job offer.

The STAR interview method

The STAR method, which stands for Situation, Task, Action, and Result, is a common approach where interviewers often frame questions to be best addressed using this structured format.

Watch for questions that prompt you to describe past situations, discuss specific challenges, or detail achieved results. When responding, structure your answers to articulate the situation or task, the actions you took, and the positive outcomes attained. This method provides a systematic way to highlight your problem-solving and decision-making skills, aligning seamlessly with the industry's interview expectations. Utilizing the STAR method enables you to stay focused, respond succinctly, and demonstrate your skills with the interviewer's preferred format, leaving a lasting positive impression.

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Interview Preparation

The interview process

Interviews for VR developer positions typically include more than one round of interviews. These may be a mix of behavioral interviews to assess your interpersonal skills, teamwork, and cultural fit, as well as technical interviews to evaluate your technical knowledge and problem solving approach. Technical interviews may involve discussing real-time 3D concepts, VR best practices, and framework usage.

Technical assessment: Many companies conduct a technical assessment to evaluate your programming skills, VR development capabilities, and problem-solving abilities. This may involve coding exercises, interaction implementation with specific SDKs, and application troubleshooting.

Coding interviews: Some interviews may include hypothetical problem-solving scenarios or coding challenges to assess your ability to communicate, think critically, and solve problems in real-time. This may involve working through a coding problem on a whiteboard (either physical or digital) or explaining your approach to a given scenario. These interviews generally focus more on assessing your thought process, and may even limit you to writing pseudo code.

Cultural fit: In addition to technical assessments, companies often prioritize interviews focusing on cultural fit. These conversations provide your prospective team with the chance to understand how your values align with the company culture. Expect questions that delve into your work style, collaboration preferences, and how you approach challenges as part of a team. Demonstrating your adaptability, communication skills, and enthusiasm for collaborative work is key to making a positive impression in these cultural fit interviews.

Resources for career development

As this job profile is still in its early access phase, we are working to gather resources that align with the VR developer role. Our commitment is to provide you with a comprehensive and up-to-date aid that will assist in optimizing your career path. If you are an educator and have any learning experiences or know of any relevant resources that could add value, we encourage you to share this invaluable information via this submission form. Your contribution will not only be highly appreciated, but also integral to the growth of our community of VR developers

Learning experiences

VR Development Learning Pathway on Unity Learn: This learning experience is designed for anyone interested in creating experiences for VR using the Unity Engine. This pathway assumes a basic knowledge of Unity and a basic knowledge of C#.

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Resources for career development

Acknowledgements

The development of this Universal Job Profile was made possible by the expertise and support of the Employer Advisory Board (EAB). Composed of professionals from leading companies in the real-time 3D landscape, the EAB serves as dedicated subject matter experts for the initiative, offering invaluable insights into the in-demand job roles within their respective industries. We extend our sincere thanks to each member of the EAB for their commitment to the success of the Universal Job Profiles. Their dedication not only showcases their professionalism but also highlights their significant investment in shaping a brighter future for the RT3D industry. We appreciate the collaborative spirit and contributions of the EAB, which have played a crucial role in advancing careers and opportunities within the RT3D field.

Employer Advisory Board Members

With special thanks to:

Alex Boyce, Anne Johnson, Brittany Gilbert-DeMarco, Dan Hewlett, Jason Harrison, Jason Parks, Julian Chelo, Lianna Johnstone, Lyle Maxon, Michael Courneya, Molly Kodros, Nick Janicki, Patrick Lenahan, Patrick Owens, Renee Gittins, Ricardo Arango, Ryan Cassidy, Sarvesh Navelkar, Stacey Long Genovese, Turi Cacciatore, Ulises Pereida, William Garner, and Zak Whaley
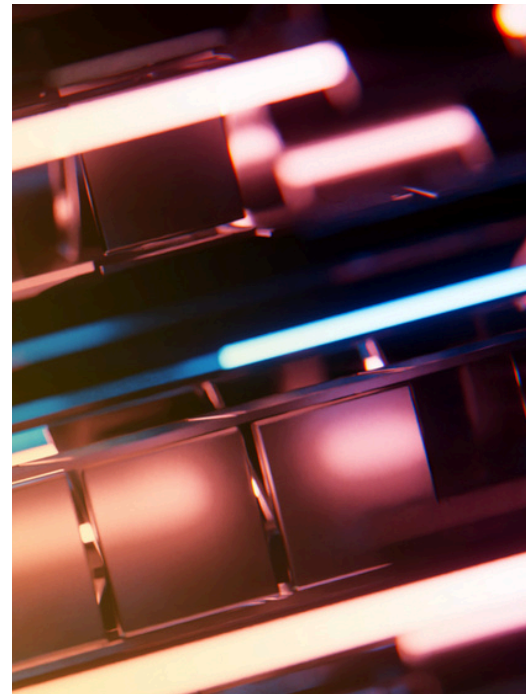
About the Universal Job Profiles

The Universal Job Profiles are developed as part of Elevate, a Unity initiative dedicated to facilitating the entry of new talent into the RT3D industry by establishing robust and open lines of communication among job seekers, educators, and employers.

Universal Job Profiles have been created to provide a unified framework for defining job roles within the RT3D sector. The goal of this document is to serve as a handbook for anyone seeking a job, aiming to create a learning experience, or vetting candidates. By standardizing job roles, aspiring professionals can confidently acquire the necessary skills, educational institutions can design comprehensive learning experiences covering the full spectrum of each job, and employers can easily evaluate job candidates.

The data for Universal Job Profiles was gathered using the expertise of the Employer Advisory Board: a group of experts from industry-leading companies across all parts of the RT3D landscape, including games, media, training, and more. The board serves as our subject matter expert resource, providing crucial industry insights about in-demand job roles. By collaborating with the Employer Advisory Board, we ensure that the information shared in the Universal Job Profiles is up-to-date, accurate, and representative of actual industry needs.

These documents have been created in service to the RT3D industry, aiming to enable more diverse and talented individuals to secure jobs in this dynamic field. As such, Universal Job Profiles will always be freely available for public use.

To learn more, check out the Elevate program overview on Unity Learn.

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About the Universal Job Profiles

Contributing to the Universal Job Profile

All Universal Job Profiles are living documents: they are reviewed by the EAB twice annually to ensure that they remain accurate and up to date with the latest needs of the RT3D industry. We also welcome any suggestions from the community to help improve the overall quality and usability of these documents.

If you have any suggestions, questions, or feedback regarding this Universal Job Profile, please let us know by filling out this form:

Universal Job Profile Feedback

If you or your company has created a career development resource, such as a learning experience, certification or mentorship program that aligns with this Universal Job Profile and would like to have it included in this document, please fill out this form:

Universal Job Profile course submission

The Employer Advisory Board is actively recruiting new members. This is a volunteer board for companies that use RT3D tools to ship their products and personally employ staff that use RT3D tool sets as part of their day-to-day job. Members of the EAB advise on industry standards, provide subject matter experts for informational interviews, and help determine what Universal Job Profiles should be made next. If your company is interested in learning more and potentially joining the board, please fill out this form.

Employer Advisory Board Membership Application

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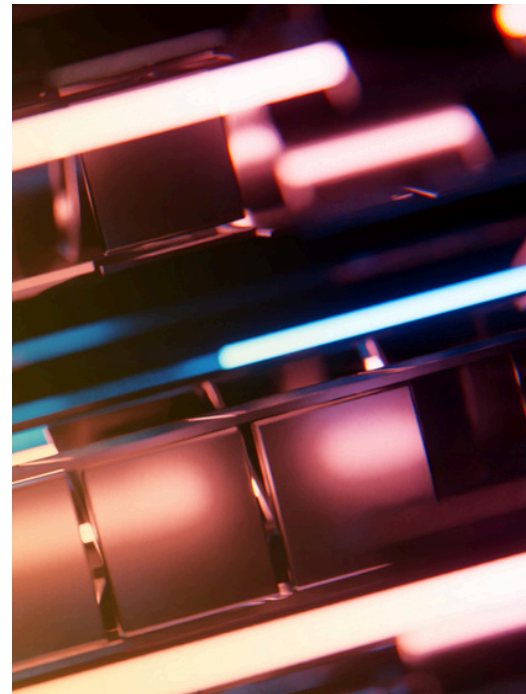
CHANGELOG

0.0.2 - 2024-06-25
- Early access release:
    - Minor layout adjustments
    - Updated contact links
    - Updated company logos
    - Added pay band info

0.0.1 - 2024-01-17
- Initial review release