

Intro to the architecture and the development of 360 degrees experiences in Unity

Learn the foundations to build a 360° experience from scratch using Unity with the help of VR pioneers from Casa Rara Studio.

During the workshop, you will:

- Have a Virtual Reality development training with professional instructors
- Build the base of your pilot project in Unity
- Receive all project files and a full course curriculum outlining the course modules with sources to deepen your knowledge.

You will:

- Have an intro to the history of VR
- Learn about the recent usages of VR in Arts, Films, Games and more
- Learn the design pillars of creating a 360° immersive experience
- Learn the basics of Unity, the leading 3D engine, to create VR apps and 360° videos of your own
- Learn Art best practices to build in Unity. Asset integration, basic animation, basic shading and lighting
- Learn basic audio integration in Unity and the role of sound specialization in 360° storytelling
- Try an assortment of VR titles to inspire your creations
- Build a VR project from scratch in Unity
- Learn how to export your project as 360° video and VR app for different headsets

You'll leave with:

- A VR project you can keep building in your house
- A stronger understanding of how to use Unity to create your own VR projects

Group Class 1: (Tali, Ruben and Charlène) Saturday February 10th

4h TOTAL

- Intro of team & course overview
- Intro to VR
- Learn about the recent usages of VR in Arts, Films, Games and more
- Try an assortment of VR titles to inspire your creations

Discussion: Intro & course overview

- Who we are: Casa Rara, developers with 10y experience making videogames
- Getting to know the students, their backgrounds and goals
- What this is: a workshop about learning what VR is and how to use it for creation
- You will develop your own work of art and people will be able to see it in VR at the end of the workshop

Presentation: Intro to VR

- What is the dream of VR: Cultural collective imaginariu: Star Trek, 90s movies, etc.
- Earlier attempts in the 60s and 90s
- Today: it is reliable and it works! Used for: games, advertisement, art installations...
- How VR works:
Trick your brain: head-tracking, vision field, audio, hand presence
- Why some people get sick in VR: quick explanation of inner-ear & poisoning idea
- Questions

Presentation: VR in Arts, Films and Games

- Panorama of the available VR technologies, comparative analysis and VR applications in different industries
- Exploring the differences and usages of Mobile VR (Google Cardboard, Daydream and Samsung Gear VR) and Stationary VR (Oculus Rift, PSVR and HTC VIVE)
- Focus on applications in Art, Films and Games
- Showcase of applications in science, education and marketing

Activity: Try VR

- Experiences to play in VR:
 - Lost: <https://www.oculus.com/experiences/rift/1016967501697367/> -narrative, 5min
 - Henry: <https://www.oculus.com/experiences/rift/1043217179077622/> - narrative, 5min
 - Dear Angelica: <https://www.oculus.com/experiences/rift/1174445049267874/> - narrative, 13min, made in Quill
 - First Contact or Job Simulator: <https://www.oculus.com/experiences/rift/1217155751659625/> or <https://www.oculus.com/experiences/rift/1069133196442024/> -interactive, accessible, 15-20min
 - Superhot: <https://www.oculus.com/experiences/rift/1012593518800648/> - interactive, action, physical, 20min

Group Class 2: (Ruben and Charlène) Monday February 12th

3h TOTAL

Presentation: Design pillars for 360° immersive experience

- Basic concepts of immersion, POV/ camera, setting, layout, storytelling, sound
- Design differences between 360° viewers such YouTube 360°, immersive headsets and room-scale VR
- Design differences between interactive and passive 360° experiences
- Embodiment, Locomotion, Virtual hands and user representation in VR
- User Interface in 360°
- Tips to better design and plan your experience in VR

Activity: Script write a short scene

- Conceive and write down a mini scene using the main design concepts
- Draw a simple schematic of where actions happen in the scene
- Show your peers and discuss strategies to make it more adequate for the 360° format

Group Class 3: (Charlène) Saturday February 17th

4h TOTAL

Presentation: Unity Essentials

- Using the Unity Interface
- Essential Unity Concepts

Activity: Exercises to get familiar with Unity

Presentation: Beginner Scripting

- Using the Unity Interface

Activity: Exercises to start simple scripting

Group Class 4: (Charlène) Monday February 19th

3h TOTAL

Presentation: Unity Animator

Activity: Exercises to get familiar with the Animator

Presentation: VR tools in Unity

Activity: Exercises to start a VR scene in Unity

Group Class 5: (Eliott) Saturday February 24th

4h TOTAL

Presentation: Art Integration in Unity

Activity: Exercises of Art Integration

Presentation: Basic Particles in Unity

Activity: Exercises on Particles

Presentation: Basic Lighting in Unity

Activity: Exercises on Lighting

Group Class 6: (Ruben, Charlène) Monday February 26th

3h TOTAL

Presentation: Brief on personal project constrains

Activity: Draft of project design and plan

Feedback: Ruben and Charlène give tips to accomplish your plan

Activity: Second Draft of project design and plan

Feedback: Ruben and Charlène give you references and resources to help with the development

Group Class 7: (Charlène) Monday March 5th

3h TOTAL

Activity: Start Unity project

Activity: Start the Gray Box of your project

Group Class 8: (Charlène) Saturday March 10th

4h TOTAL

Activity: Finalize the gray box

Group Class 9: (Charlène) Monday March 12th

3h TOTAL

Activity: Further work on your project



Private Lessons between the 13th and 25th of March

2h TOTAL

Activity: each participant will be able to book sessions of 2h with the coach of their choice to further advance their project.

Group Class 10: (Tali, Ruben and Charlène) Monday March 26th

2h TOTAL

Activity: Present all the projects

Activity: Group Post-Mortem

Wrap up

VR Trainers

Led by co-founders Ruben Farrus and Tali Goldstein, the veteran team at **CASA RARA** creates meaningful VR experiences that attract wide audiences and have a positive impact on society. At CASA RARA, we believe the VR medium will change the world and the way society perceives videogames. Our games talk about human stories usually explored in mainstream TV shows and films and with a long-proven mainstream appeal.

facebook.com/casararastudio/ [@CasaRaraStudio](https://twitter.com/CasaRaraStudio)



Tali Goldstein — Co-Founder & Producer

With over 11 years of experience as a producer, Tali has filled leadership roles for her entire professional life. She has expertly managed budgets of over 5M USD. In her role as Minority Media's producer, she shipped many games, including the critically-acclaimed *Papo & Yo*, the App Store chart topper *Loco Motors*, and the ground-breaking *Spirits of Spring*. Her most recent project, *Time Machine VR*, was one of the most acclaimed launch games for VR devices, praised by the industry and gaming press, and nominated for a 2016 NUMIX award. As a studio manager, Tali took Minority Media from a 5-person startup to one of Canada's leading developers at the forefront of VR innovation, employing 40 highly-talented professionals. Tali has established relationships with all major digital content publishers, including Sony, Microsoft, Apple, Amazon, Google, Valve, Steam, Facebook, Oculus VR, HTC and Samsung.



Ruben Farrus — Co-Founder & Creative Director

Ruben has 9 years of experience taking games from inception to worldwide launch. He learned and perfected his craft at AAA developers Electronic Arts and Eidos before playing a decisive creative role in establishing Minority Media's reputation in games like award-winning *Papo & Yo* and *Spirits of Spring*. Respected across the game industry, Ruben's numerous keynotes, master classes, and workshops, have inspired his peers. Ruben worked with the National Film Board of Canada (NFB) on *I Love Potatoes*, a narrative game about social innovation. Since launch, the game has collected numerous prizes for its engaging social features and transformative thematic (Best Social Game at the Canadian Videogame Awards in 2015; The 2016 NUMIX Grand Prix; 2017's Best Original Interactive Production by the Academy of Canadian Cinema & Television; among others.) Since 2013 Ruben has explored the VR medium with gaming, educational and artistic projects: Minority Media's *Time Machine VR*, *Niwîchewâkan: Cree Syllabics VR* (with the Cree School Board) and *Museum Of Symmetry* (with the National Film Board).



Charlène Boutin — Designer

CASA RARA always keeps an eye out for fresh talent. Charlène has recently graduated from Game Design at l'Université du Québec en Abitibi Témiscamingue. During her studies, she cultivated a passion for making complex game systems and developing enticing stories capable of reaching player emotion. An organized leader by nature, she has skills in game design, level design, narrative design and complex mechanics design. She has sharp prototyping skills, including great knowledge of C# in Unity as well as Unreal Engine 4's blueprint system. Charlène joined CASA RARA for an internship in March 2017, and quickly demonstrated her potential: she is a fast learner and has the attitude of a pro. Charlène creates proof that CASA RARA's vision of pairing talented juniors with veteran developers delivers a huge payoff for the company.



Elliott Le Calvé —Lead Artist

Elliott is a skilled 3D and 2D artist who gained his experience working in France as a concept artist, character designer, modeller, and UI artist. He moved to Montreal in search of a team with unbridled creativity and enthusiasm. He is highly proficient in art pipelines, including sculpting (Zbrush), retopology/high/lowpoly modeling (3Dcoat, Maya), mapping (xNormal), rigging/animation (Maya) and PBR texturing (Quixel Suite, Photoshop). He also knows game engines Unreal Engine 4 and Unity inside out: Elliott masters engine integration, lighting/shading and FX (Shuriken, Cascade). Elliott is a great team player, and his versatility, hands-on approach and unique style have brought him to CASA RARA. He is a rare type of artist: more than a generalist, he is a true technical polymath that matches the specialist's quality standards. Elliott's understanding of both form and functionality makes him a perfect fit for our experienced art team.