

RAFAEL POLOPE CONTRERAS

Multimedia Engineer

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[Linekdln](#)

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Education

University of Valencia (2017-2021)

Graduated in Multimedia Engineering with an average grade of 8.2.

Technical Skills:

- 3D programs: Blender and Unity.
- Programming languages: Java, Python, C, C++, C#, JavaScript, CSS, HTML5 and PHP.
- Graphics libraries: OpenGL (GLSL) and WebGL.
- Frameworks: Bootstrap, Vue.JS and React.
- Development methodologies: Scrum.
- Version control: Git and SVN.
- Design pattern: MVC.
- Object-oriented programming.
- Graphic pipeline.

Featured projects:

- Add-on for Blender for VFX implementation as a Final Degree Project.
- Development of a video game.
- XR application for tourism in Valencia with Unity.
- Fluid simulations with SPH in Python.
- Simulations of terrain generation, soft bodies (PBD) and numerical integration.
- AI algorithms such as A* and "flocking".
- Graphic application in Java emulating Paint based on the MVC pattern.
- Development of an add-on for Blender with trajectory interpolation, orientation, speed control and roll in Python.
- Development of an Augmented Reality application with AR Foundation.

- Development of a game in Virtual Reality with Unreal.

Extra-academic participations:

- Mentoring for first-year students.
- University competitions in soccer, taekwondo and chess.

U-TAD (2022-Actualidad)

Masters in Computer Graphics, Simulation and Virtual Reality.

Technical Skills:

- 3D programs: Unreal, Unity and Houdini.
- Programming languages: Python, C++, C# and Matlab.
- Graphics APIS: OpenGL (GLSL) and Vulkan.
- Version control: Git and GitHub.
- Design patterns: Singleton, Pooling, Factory and Delegation.
- Mathematical knowledge: Projective geometry, vector mathematics, computational geometry and numerical methods.
- Use of Unity and Unreal packages and tools.

Featured Projects:

- Virtual Reality applications type scape room.
- VR application to move through a scene interacting with elements depending on the focus time.
- Simulations with Houdini.
- VR video game with Unreal.
- Development of a graphics engine with OpenGL and Vulkan.
- Fluid solver in C++.

Working Experience

- DISEÑO E INNOVACION TECNICA SL (02/2021-05/2021)
 - Junior programmer in practice.
 - Frontend and Backend web application development.

- React course.
- HTML5, CSS3, JS, PHP, MySQL, Codeigniter, JQuery, various plugins

- LÄBERIT (09/2021-02/2024)

- Junior programmer.
- Development and maintenance of web applications for the Murcian Health System (SMS).
- Agile Methodology.
- TDD, SOLID, Clean Code.
- Java, Spring, JPA, Hibernate, MySQL, JSF, Primefaces.
- Git, SVN, Jira, Jenkins, GitLab, Trello.

Soft Skills

- Ability to work as a team and independently.
- Initiative and leadership.
- Creativity and artistic skills.
- Ease of learning and passion for technology.
- Languages: English (Intermediate), Spanish (native).

Courses and Certifications

- Workshops and seminars in Vue.js, React.js, Scrum, video games and animation (University of Valencia, 2021).
- SDPC Certificate (CERTIFPROF) in SCRUM Developer (02/2022).
- Artificial Intelligence Applied to Business (12/2022, SEPE).